INVESTIGATING THE INTERRELATIONS AMONG SOCIAL CONTROL VARIABLES AND CONFORMITY; CHANGING ...

J. Rankin, 1978

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INVESTIGATING THE INTERRELATIONS AMONG SOCIAL CONTROL VARIABLES AND CONFORMITY; CHANGING ATTITUDES TOWARD CAPITAL PUNISHMENT; SCHOOLS AND DELINQUENCY

by

Joseph Howard Rankin

A Dissertation Submitted to the Faculty of the

DEPARTMENT OF SOCIOLOGY

In Partial Fulfillment of the Requirements
For the Degree of

Doctor of Philosophy

In the Graduate College

THE UNIVERSITY OF ARIZONA

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THE UNIVERSITY OF ARIZONA

GRADUATE COLLEGE

I hereby recommend that this dissertation prepared under my direction by Joseph Howard Rankin

entitled Investigating the Interrelations among Social Control Variables and Conformity; Changing Attitudes toward Capital Punishment; Schools and Delinquency

be accepted as fulfilling the dissertation requirement for the degree of Doctor of Philosophy

Dissertation Director — Date: 12/12/77

As members of the Final Examination Committee, we certify that we have read this dissertation and agree that it may be presented for final defense.

	12/8/77
Otis Dudley Duncan	8 Dec. 1977
	December 12, 1977
	12/12/77

Final approval and acceptance of this dissertation is contingent on the candidate's adequate performance and defense thereof at the final oral examination.

STATEMENT BY AUTHOR

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ABSTRACT

The interrelations among four social control variables (conventional activities, attachment to school, attitude towards law, and delinquent friends) and conforming behavior are examined through Goodman's method for multiway contingency tables and the minimum logit chi-square regression technique. Analyses of self-reported interviews from a random sample of 385 school-aged children in Wayne County, Michigan, indicate that the association between measures of inner containment and conforming behavior often vanishes when controlling for number of delinquent companions. Contrary to the expectations of both Reckless and Hirschi, number of delinquent companions has more bearing on conforming behavior than the measures of inner containment when both variables are included in the preferred model. Furthermore, these data lend no empirical support to Hirschi's finding that the "low-stake" adolescent is "much more likely" than the "high-stake" adolescent to have committed delinquent acts when both have several delinquent friends.

. . .

NORC surveys and data on official violent crime rates reveal a rather strong, positive, nonlinear relation between public support for capital punishment and crime rates across regions of the U. S. This investigation places the increase in support for the death penalty within the context of a more general "law and order" syndrome which

intensified approximately three years after relatively large increases in the violent crime rate. Because "crime in the streets" was an issue in the 1968 elections, concern about crime intensified, with a resultant hardening of attitudes toward criminals and a greater demand for harsh penalties. Personality characteristics and personal victimizations, however, are not significant antecedents of change in death penalty attitudes.

. . .

Strain theorists emphasize the negative consequences of poor grades and low educational expectations for the adolescent's economic future, and they assert that educational antecedents (e.g., educational expectations, academic performance) have a greater effect on the delinquent behavior of boys than girls and of older than younger adolescents. By contrast, control theorists argue that immediate problems are more salient than commitment to long-range goals, and hence they expect school factors to have separate or independent effects on delinquent behavior. The present study specifies the relations between certain school variables and delinquency by grade level and sex to formally test for the 3-way interactions predicted by strain theorists. Although the findings provide mixed support for both strain and control theories, they more clearly reveal a need for future research to examine the differential impact of antecedent conditions on the delinquent behavior of adolescent subgroups.

I

INVESTIGATING THE INTERRELATIONS AMONG SOCIAL CONTROL VARIABLES AND CONFORMITY

Control theorists (Briar and Piliavin, 1965; Polk and Halferty, 1966; Reckless, 1967; Hirschi, 1969; Piliavin, Vadum, and Hardyck, 1969) have argued that subcultural and anomic theories of deviance fail to account for the consistent findings that most adolescents engage in delinquent activities, that most "drift out" of delinquency as they mature, and that much involvement in delinquent activities is sporadic and situationally induced. Recent proponents feel that the stress on deviance as the problem and motivation as the answer account for such theoretical failures. From the control perspective, deviance is taken for granted — conformity must be explained.

Control theorists (Piliavin, Vadum, and Hardyck 1969: 165-172) assume that everyone experiences pressures or motivations to deviate, that there is a common value system (Hirschi, 1969: 23), and that deviant behavior is explained by variation in one's commitment to these conventional standards. The weaker this commitment, the greater the probability of delinquent activities. Differential involvement in delinquency, however, has been explained from two different control perspectives. Reckless (1967) considers deviant and conforming behavior to be a result of the operation and interaction among inner and outer containments, environmental pressures and pulls, and organic and

psychological pushes. Hirschi (1969) contends that delinquent behavior becomes more probable as the strength of an adolescent's "bond" to society weakens.

Although these perspectives purport to account for variable involvement in delinquency, both have several limitations.[1] Most notable are the conceptual and empirical ambiguities concerning the relationships between delinquent associational patterns, personal characteristics, and delinquent activities (for example, see Bordua, 1962: 258; Hirschi, 1969: 152-159; Liska, 1974). The present research will examine the relationships among conforming behavior, delinquent companions, conventional activities, educational expectations, attitudes toward law, and attachment to school within the framework of each control perspective.

The Containment Perspective

A long list of variables related to deviant and conventional behaviors is presented in the containment literature (see Reckless, Dinitz, and Murray, 1956; Dinitz, Reckless, and Kay, 1958; Dinitz, Scarpitti, and Reckless, 1962; Scarpitti et al., 1960; Reckless, 1967). These variables are classified into four major categories: environmental pressures and pulls, outer containment, inner containment, and organic and psychological pushes. Pushes and inner containment are viewed as internal influences, whereas pressures, pulls, and outer containment are supposedly external to the individual. In addition,

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1. For more extensive criticisms of the control perspectives, see Briar and Piliavin (1965), Tangri and Schwartz (1967), Jensen (1970), Quinney (1970: 238-239), Schrag (1971: 84-87), and Akers (1973: 28-29).

pressures, pulls, and pushes are presented as criminogenic variables, while inner and outer containments are depicted as sources of conforming behavior. Deviant or conforming behavior is considered to be a result of the "interaction" among the variables in all of these categories (see Schrag, 1971: 83).

Environmental pressures and pulls supposedly "draw the person away from his original way of life and accepted forms of living" (Reckless, 1967: 480) and encompass such phenomena as adverse living conditions, unemployment, minority status, lack of opportunity, deviant companions,[2] membership in criminal subcultures, and certain mass media influences. Reckless (1967: 475) defines outer containment as ". . . the capability of society, groups, organizations and communities to hold the behavior of individuals within the bounds of accepted norms, rules, regulations, laws, expectations, and values," including institutional reinforcement of norms, effective supervision and discipline, and a reasonable scope of conventional activities. Inner containment represents an individual's inner ability to follow expected norms. A focus on long-range, approved goals, such as education, purportedly helps the individual conform to approved norms and expectations. Other aspects include a good self-concept and commitment to conventional values, norms, laws, and customs. Finally, organic and psychological pushes include such things as psychological defects, inner tensions, organic impairments, anxiety, and hostility.

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2. It is important to note that from Reckless' control perspective, delinquent companionship has a direct (causal) effect on the commission of delinquent acts.

While Reckless, Dinitz, and Kay (1957) call their formulation a theory, it has been severely criticized on both logical and operational grounds. One critique points out that "it appears to be little more than an inadequate classification scheme" (Jensen, 1970: 4), for there appears to be no rationale for classifying its variables as pushes, pulls, or inner and outer containments other than in terms of the behavior to be explained.[3] There is also a scarcity of clearly stated, testable hypotheses other than that suggested by Reckless' "prediction model." The interrelations among the causal elements of the perspective are left to the reader.

The Social Bond Perspective

While Reckless (1967) believes that further research must "ferret out" the "basic regulators of normative behavior," another author has attempted this within the framework of a different control perspective which explains differential involvement in delinquency by the strength of one's ties to conventional society. The major proponent of this perspective (Hirschi, 1969) argues that the bond of an adolescent to the conventional order may be weak or virtually nonexistent, thus increasing the probability of delinquency. This bond has four components (belief, involvement, attachment, and commitment) which are positively related and are thought to have independent effects on delinquent behavior (Hirschi, 1969: 16-34).

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3. For example, "supportive relationships" (a variable favorable to conformity) is listed under outer containment, whereas its complement, "bad companions" (a variable favorable to delinquency), is regarded as an aspect of environmental pulls.

Belief

Control theorists assume that the delinquent believes in the societal values and laws even as he violates them. Hirschi (1969) does not assume, as do Sykes and Matza (1957), that the adolescent must "neutralize" these beliefs. Instead, he contends "that there is variation in the extent to which people believe they should obey the rules of society" (Hirschi, 1969: 26). The more strongly the adolescent is tied to the laws, the less likely he is to invent "techniques of neutralization." Conversely, the weaker his ties, the less he needs to neutralize normative constraints.

Involvement

An adolescent may simply be too involved in conventional activities to find time for law-breaking behavior (Hirschi, 1969: 22). Indeed, the adolescent working at an after-school job, playing baseball, or doing homework is not committing delinquent acts. The idea is to keep juveniles off the streets by filling their time with conventional activities.

Attachment

Societal norms are, by definition, shared by most of that society's members. If an individual is insensitive to others' opinions, however, he is not entirely bound by those norms and is free to deviate. Similarly, those who do poorly in school reduce their educational interests and, hence, are free (to the extent of their reduced attachment to school) to commit delinquent acts (see Hindelang, 1973: 476).

Although school rewards those possessing the necessary skills to solve intellectual problems, it punishes academically incompetent adolescents. Thus, the child who possesses such skills and does well academically is more likely to enjoy school, increasing his attachment and lowering the probability of delinquency.

One effect of peer attachment is dependent upon the conventionality of these individuals.[4] Since Hirschi argues that there is a strong tendency for adolescents to befriend those whose activities and interests are congruent with their own, individuals whose "stakes in conformity"[5] are low would be more likely to have delinquent friends than would "high stakes" adolescents. Thus, Hirschi suggests that the relation between delinquent companions and delinquent behavior is spurious: "The boy takes up with delinquents and commits delinquent acts because he has lost his stakes in conformity" (Hirschi, 1969: 138). Faced with data obviously to the contrary, however, Hirschi revised his model to include a (causal) arrow from delinquent companions to delinquent acts (see Figure 1). Even so, this suggests a causal ordering different from that assumed by differential association theorists who

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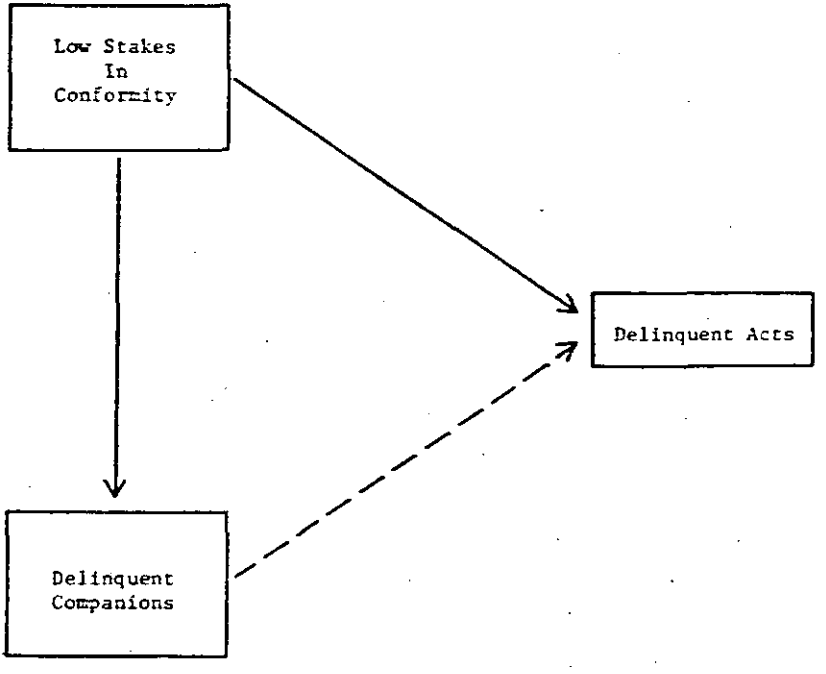
4. Hirschi, on the contrary, argues and claims to have shown empirically that attachment to peers is a deterrent to delinquency regardless of the conventionality of friends.

5. From such a view, decisions to commit delinquent acts are rationally determined (Piliavin, Vadum, and Hardyck, 1969) given the individual's potential costs and risks he runs of losing his previous investment in conventional behavior. The adolescent with high stakes in conformity is committed to meeting conventional expectations and is thus less likely to engage in criminal activity than is one for whom these stakes are low.



The revised social control model includes an arrow from delinquent companions to delinquent acts.

Figure 1. Hypothesized Relations among Stakes in Conformity, Delinquency of Companions, and Delinquent Acts [as Proposed by Hirschi's (1969) Social Control Model]

view delinquent companions as an intervening variable between "attitudes toward conventional persons or institutions" and "delinquent acts."

Commitment

Even though "attachment" is subsumed by the notion of "stakes in conformity," "commitment" is synonymous with the term in that deviation jeopardizes one's chances of success. An individual who loses his incentives for conventional goals "is to that extent free to commit deviant acts without 'normal' concern for the consequences" (Hirschi, 1969: 162). Thus, an adolescent who expects future pay-offs from a higher education increases his stakes and decreases his probability of delinquency.

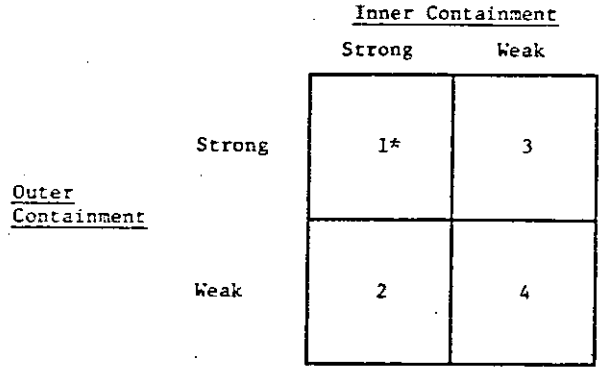
Research Rationale

Although differential involvement in delinquency is explained somewhat differently by the two control perspectives, both predict identical bivariate relations between each of the five previously discussed variables and delinquency (see Table 1). Very little conceptual or empirical information is offered, however, concerning the interrelations among delinquency and the various combinations of social control variables. One (conceptual) exception is Reckless' (1967: 478) "prediction model" (See Figure 2):

> . . . which maintains that crime rates are at a maximum where both inner and outer containments are weak, and at a minimum where the containments are strong. In cases where one is weak and the other strong, Reckless holds that weak inner containment has a higher probability of criminality than weak outer containment (Schrag, 1971: 84).

Table 1. Relationships between Each of the Five Social Control Variables and Delinquency, within the Two Control Perspectives

Social Control Variables	Control Perspectives: Containment	Control Perspectives: Bond	Relation to Delinquency
(1) No. of delinquent companions	Environmental Pulls	Attachment	Positive
(2) Conventional activities	Outer	Involvement	Negative
(3) Educational expectations	Inner	Commitment	Negative
(4) Attachment to school	Inner	Attachment	Negative
(5) Attitude towards law	Inner	Belief	Negative



*Where 1 = the lowest predicted number of delinquent acts, and 4 = the highest predicted number of acts.

Figure 2. Reckless' "Prediction Model" and Its Hypothesized Interrelations among Inner and Outer Containments and Delinquency, Controlling for Strength of the Containments

Moreover, Reckless claims that inner containment should operate to deter adolescents from delinquency independently of outer containment, and measures of outer containment should have an effect in situations of both strong and weak inner containment. Accordingly, Reckless hypothesizes no interaction effects between elements of inner and outer containment.

Empirically, however, Hirschi reported a significant interaction among delinquent friends (or environmental pressures and pulls), stakes in conformity (or inner containment), and delinquency.

> As is true in any case of interaction, the statement that the impact of delinquent friends depends on stakes in conformity implies a corollary statement: the greater the number of delinquent friends, the greater the impact of stakes in conformity. The low-stake boy with no delinquent friends is more likely to have committed delinquent acts than the high-stake boy with no delinquent friends, but the low-stake boy is much more likely than the high-stake boy to have committed delinquent acts when both have several delinquent friends (Hirschi, 1969: 158).

Thus, Hirschi's empirical results run contrary to both his and Reckless' expectations. The present research will further investigate the interrelations among delinquency and selected components of the social control perspectives.

The Present Investigation

The data for this study were gathered in 1974 by the Wayne County Juvenile Facility Network [WCJFN] (1975) from public school districts in grades seven through eleven of the "out county"[6] area of Wayne County, Michigan. A two-stage sampling design was utilized. The

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6. This includes all but the Detroit, Highland Park, and Hamtramck school districts.

first stage consisted of a sample drawn with replacement from the 33 public school districts in the "out county" area. Each district was then weighted according to its total seventh through eleventh grade enrollment so that each child in the collective district had an equal chance of being drawn. In this manner, eight different school districts were drawn, and two districts were each repeated once.[7]

In the second stage of the sample, names were selected at random from all seventh though eleventh grade girls and boys in proportion to the actual enrollment in each grade at each school in every selected district. A total of 385 interviews, constituting 79 percent of the original sample, was conducted. Refusals to be interviewed, change in residence, and inability to contact parents accounted for the balance.[8]

The geographic area under consideration included not only densely populated, blue-collar, urban industrial communities, but also wholly residential communities, some of which were high income and white-collar and others which were moderate to low income. The western edge of the

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7. From this initial drawing, three districts could not participate (one declined and the other two districts were too involved in labor negotiations to participate) and were replaced in a subsequent drawing (WCJFN, 1975).

8. Of the 102 unsuccessful interviews, only four occurred because of refusals by the juveniles to be questioned. Nonresponse bias could, therefore, arise from a "mobility" factor (i.e., those students moving into or out of the selected school districts could be more or less delinquent than those already residing in the areas). There has been, however, very little research on the consequences of juvenile transiency and none on its relation to delinquency. In fact, past research provides no empirical evidence that such a relationship even exists. For example, Barrett and Noble (1973: 187) concluded that ". . . children who had moved did not differ from a random sample of their peers in Total Disability Aggression, Inhibition, or Learning Disability . . . ." Moreover, a study by Evans (1966) found no significant differences in IQ between mobile and nonmobile students.

county included some sparsely settled rural towns with occasional farms. The non-white population of the "out county" area is only about 5 percent, most of which is clustered in a few communities not included in the sample.

Operational Measures

The present research examines the interrelations among delinquency, delinquent peers, conventional activities, educational expectations, attitudes toward law, and attachment to school. Delinquent peers and conventional activities are elements of outer containment or environmental pulls (or attachment and involvement, respectively), whereas the latter three variables are elements of inner containment (or commitment, belief, and attachment, respectively; see Table 1).

The measure of conventional activities was based on the following items: "Do you have a job during the school year;"[9] "how many times have you worked on a school paper or for some other club apart from sports in the past year;" "how many times in the past year have you been elected a class officer in school, or officer in a club at school or outside school;" "how many times in the past year have you played on a school athletic team?" Scores were calculated by summing each adolescent's responses to these four questions.

Delinquent peer associations were measured by responses to the question, "Of all your friends, how many out of ten have done this in the past year — (1) taken something worth less than $50.00 (petty

9. A "yes" response was coded "1;" "no" was coded "0."

larceny), (2) run away from home (defiance), (3) damaged property on purpose that wasn't yours or your family's (damaged property), (4) been drinking with friends (drinking), or (5) gotten into a fist fight with someone either by yourself or as part of a group (fights)?"

Single items served as measures of the remaining independent variables: "What kind of education do you expect to get after high school" (educational expectations); "what if someone steals something from a store just for the thrill of it" [Law 1] and "some people say there are too many unnecessary laws and regulations, and they lie to get around them" [Law 2] (attitudes toward law);[10] and, "how much do you like school?" (attachment to school). All three measures of inner containment were dichotomized so that any respondent who expected no further education after high school was classified under weak inner containment, as were those who answered "not at all," "not very much," or "somewhat" on the attachment to school question or "always all right," "often all right," or "all right once in a while" on the two attitudes toward law questions. Conversely, anyone who responded "pretty well" or "very well" (attachment to school) as well as those answering "almost never all right" or "absolutely never all right" (attitudes toward law) were classified under strong inner containment.

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10. The author received these data after the study was completed and therefore had no hand in devising the interview schedule. Admittedly, a single item which attempts to measure a general attitude toward many diverse laws may appear invalid. In an attempt to "correct" this, two measures of "attitudes toward law" are included in the data analysis so the reader can draw his own conclusions concerning the validity of the measure. The similarity of the empirical results should appease most skeptics.

Rather than devising one delinquency scale covering a wide range of different acts, various offenses were used as separate measures of delinquent activities. "Petty larceny," "damaged property," "drinking," and "fights" were measured by asking the respondents, "How many times have you committed this act in the past year?" Defiance was operationalized through a series of four questions: "How many times in the past year have you (1) stayed out all night without your parents' permission, (2) cursed at your parents to their face, (3) hit either of your parents, and (4) run away from home?" Again, scores were obtained by summing each adolescent's responses to the previous questions. The five offenses were dichotomized into the categories "no acts committed" (conformity) and "one or more acts committed" (deviant behavior),[11] with the theoretical concern on explaining differences in the odds on conformity, relative to deviant behavior.

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11. Research by Erickson and Empey (1963) found that the clearest distinction among official delinquents was between non- and one-time offenders, on the one hand, and recidivists, on the other. Preliminary tests were thus run on all 40 of the subtables in Tables 2 and 3 of this study to discover whether there were any discriminating dichotomies on the volume of delinquent offenses. The dependent variables were trichotomized (0, 1, 2+ offenses), and the resulting tables were then partitioned using the procedure described by Duncan (1975) in which the trichotomous dependent variables are represented as a set of three dichotomous formal variables. This method can provide statistical justification for combining categories of polytomous variables in multiway tables. The results revealed that in only three of the 40 subtables should the categories of the dependent variables have been combined according to the results obtained by Erickson and Empey (1963) (i.e., 0 and 1 v. 2+ offenses).

Findings

The data were analyzed by Goodman's (1970) method for multiway contingency tables[12] and the minimum logit chi-square regression technique[13] (Theil, 1970) with the dependent variable

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12. Essentially, Goodman's technique involves calculating expected frequencies for each of the models to be tested. The various models are evaluated by comparing expected frequencies to observed frequencies of hierarchical models, utilizing the likelihood ratio chi-square statistic to test "goodness of fit." Hierarchical models are compared by the subtraction of chi-square values and the degrees of freedom to yield a new chi-square statistic which is then examined for improvement of fit. Interpretation of the chosen model is clarified by computing odds and odds ratios on the expected frequencies; these describe the strength of the relationship, or the magnitude of each effect.

"Odds" are computed in a fashion similar to those used in horse betting. For example, the odds on "conformity," relative to "delinquent behavior," would be .33 if 33 respondents had reported zero delicts and 100 had reported at least one delict for a certain offense, within the ith category of Educational Attachment and the jth category of Delinquent Companions.

13. This technique estimates the linearity of the log odds of a dichotomous dependent variable on different combinations of scaled and dummy independent variables. A particular regression model provides an acceptable fit to the data if the predicted log odds don't differ significantly from the observed log odds. A particular model's "goodness of fit" is determined by calculating the logit chi-square statistic.

Weights are defined by the formula,

$$\text{weight} = (A_{ij} + 0.5)(B_{ij} + 0.5)/(A_{ij} + B_{ij} + 1),$$

where A_{ij} and B_{ij} are the number of juveniles responding "no delinquent acts" and "one or more delinquent acts," respectively, in the ith category of conventional activities or delinquent peers and in the jth category of either educational expectations, attachment to school, or attitudes toward law.

Interpretation of the results can be clarified by an example of a minimum logit chi-square regression equation (from subtable [6] of Table 3):

$$\hat{Y} = .81 + 1.06(X_1) - .31(X_2)$$

where $\hat{Y}$ = the expected log odds on conformity (petty larceny), X_1 = a dummy variable for Educational Attachment (0 = weak containment, 1 = strong), and X_2 = number of Delinquent Companions. Thus, being strongly attached to the educational system raises the log odds on conformity by 1.06, while an increase of one delinquent companion lowers these log odds by .31.

$$Y_i = \log_e[(A_i + 0.5)/(B_i + 0.5)],$$

where A_i and B_i are the frequencies for the ith response category ($i = 1, 2$). Independent variables included the linear scoring of the categories for conventional activities and delinquent friends and dummy variables for educational expectations, attachment to school, and attitudes toward law.

The first set of analyses concerns the interrelations among each of the five delinquent acts with conventional activities and each of the three measures of inner containment (educational expectations, attachment to school, and attitudes toward law). No acceptable linear fit to the models could be obtained with the minimum logit chi-square regression technique, but it could be argued that there is a nonlinear relation between conventional activities and delinquent acts. Therefore, the measure of conventional activities was collapsed into a trichotomy (0, 1-4, and 5+), and the same data were then re-analyzed using the maximum likelihood multiway contingency table approach. The same conclusions are reached by either technique. As can be seen in Table 2, conventional activities has no effect on any of the five dependent variables when in combination with one of the measures of inner containment. This conclusion is similar to that reached by both Hindelang (1973: 481-483) and Hirschi (1969: 187-191), who reasoned that most adolescents are frequently exposed to law-breaking behavior, and that the delinquent acts themselves actually require little time.

It is interesting to note that in all four subtables involving the delinquent act "fights" and in two of the subtables ([13], [15])

Table 2. Chi-Square Statistics, (Fitted) Odds on Conformity (Relative to Delinquent Behavior), and (Fitted) Odds Ratios (Strong:Weak) for the Preferred Models of the 3-Way Contingency Tables, Delinquent Acts (A) by Conventional Behavior (B) by Four Indices of Inner Containment (C)

Dependent Variable	C = Educational Expectations	C = Educational Attachment	C = Law 1	C = Law 2
A = Fights	[1] Not significant at .05 level	[2] Not significant at .05 level	[3] Not significant at .05 level	[4] Not significant at .05 level
A = Petty Larceny	[5] (BC) (AC) $X^2 = 4.6$, 4 d.f. P = .33	[6] (BC) (AC) $X^2 = 2.0$, 4 d.f. P = .74	[7] (BC) (AC) $X^2 = 2.0$, 4 d.f. P = .73	[8] (BC) (AC) $X^2 = 4.9$, 4 d.f. P = .30
	Odds / Ratio	Odds / Ratio	Odds / Ratio	Odds / Ratio
	Str. 1.90 / 1.60	Str. 2.48 / 3.44	Str. 1.88 / 2.47	Str. 2.18 / 2.16
	Weak 1.19	Weak .72	Weak .76	Weak 1.01
A = Defiance	[9] (BC) (AC) $X^2 = 6.7$, 4 d.f. P = .15	[10] (BC) (AC) $X^2 = 7.3$, 4 d.f. P = .12	[11] (BC) (AC) $X^2 = 4.4$, 4 d.f. P = .36	[12] (BC) (AC) $X^2 = 7.2$, 4 d.f. P = .12
	Odds / Ratio	Odds / Ratio	Odds / Ratio	Odds / Ratio
	Str. 3.07 / 2.90	Str. 3.12 / 2.76	Str. 2.59 / 2.91	Str. 3.48 / 3.22
	Weak 1.06	Weak 1.13	Weak .89	Weak 1.08

Table 2 — continued

Dependent Variable	C = Educational Expectations	C = Educational Attachment	C = Law 1	C = Law 2
A = Damaged Property	[13] Not significant at the .05 level	[14] (BC) (AC) $X^2 = 4.4$, 4 d.f. P = .36 Odds / Ratio Str. 6.66 / 2.73 Weak 2.44	[15] Not significant at .05 level	[16] (BC) (AC) $X^2 = 1.4$, 4 d.f. P = .83 Odds / Ratio Str. 6.84 / 2.64 Weak 2.59
A = Drinks	[17] (BC) (AC) $X^2 = 1.5$, 4 d.f. P = .83 Odds / Ratio Str. 1.10 / 1.80 Weak .61	[18] (BC) (AC) $X^2 = 2.9$, 4 d.f. P = .57 Odds / Ratio Str. 1.13 / 1.88 Weak .60	[19] (BC) (AC) $X^2 = 1.6$, 4 d.f. P = .81 Odds / Ratio Str. 1.13 / 5.38 Weak .21	[20] (BC) (AC) $X^2 = 1.3$, 4 d.f. P = .86 Odds / Ratio Str. 1.35 / 3.0 Weak .45

involving "damaged property," the measure of inner containment also had no effect. In the remaining tables, however, inner containment did have a significant effect (at the .05 level of probability) in the hypothesized direction. The odds ratios (strong:weak) describing the relation between inner containment and the odds on conformity are all greater than one, indicating there are more conforming adolescents under conditions where inner containment is strong than under conditions when it is weak. Moreover, this association appears to be quite strong, as the odds ratios range from a low of 1.60 in subtable [5] to a high of 5.38 in subtable [19].

The second set of analyses concerns the interrelations among each of the same five delinquent acts, delinquent companions, and each of the same measures of inner containment. Regressing the log of the odds on conformity on delinquent companions results in a good linear fit (the only exceptions being subtables [12], [15], and [16] of Table 3).[14] The chi-square statistics and preferred minimum logit chi-square regression equations are presented in Table 3.

The different measures of inner containment have an <u>independent</u> effect on the dependent variable in only five of the twenty subtables

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14. In order to test for a <u>nonlinear</u> effect, "delinquent friends" was collapsed into a trichotomy (0, 1-4, 5-10) and these subtables were then analyzed by Goodman's technique. The trivial model of 3-way interaction had to be accepted for subtables [12] and [15], and the observed cell frequencies were therefore needed to explain the association among the three variables. The association in subtable [16], however, can be explained by the single nonlinear effect of delinquent friends on the dependent variable.

([6], [9], [10], [19], and [20]) in Table 3. In view of the dummy variable scoring convention adopted,[15] none of these independent effects are in the direction hypothesized by Reckless (see Figure 2). Since Reckless predicts more deviance in situations where inner containment is weak and outer containment is strong than under the opposite conditions, there should also be more conformists (or less deviants) under the latter situations. Results contrary to Reckless' expectations, however, are found in all five subtables. Figure 3 presents the (fitted) odds on conformity by number of delinquent friends within categories of attachment to school for subtable [10] of Table 3. The odds on conformity under situations of strong inner containment (or high-stakes) and weak outer containment are .35, as compared to the opposite situation where the odds on conformity are 2.09. Results similar to these are found in the other four subtables.

Comparing the subtables in Table 3 with the corresponding subtables in Table 2, it appears that the association between the elements of inner containment and the dependent variables is often spurious or indirect (compare subtables [5], [7], [8], [14], [16], [17], and [18]) when controlling for number of delinquent companions. Even though different (causal) models could lead to this finding, these results run contrary to Hirschi's (1969) expectations in his social control model

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15. The dummy variable scoring procedures were as follows: educational expectations, 0 = strong containment, 1 = weak; attachment to school and attitudes toward law, 0 = weak containment, 1 = strong.

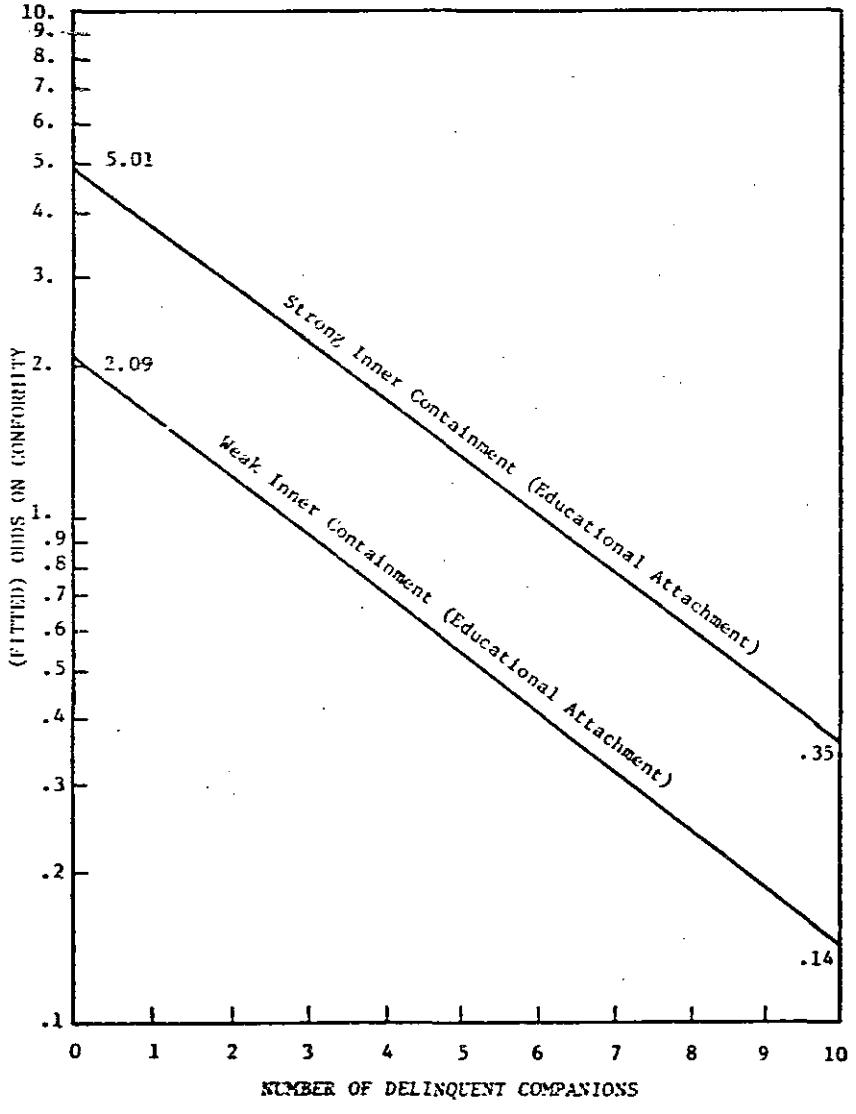

Figure 3. (Fitted) Odds on Conformity (Relative to Delinquent Behavior) by Number of Delinquent Companions within Categories of Attachment to School (from Subtable [10] of Table 3)

Table 3. Chi-Square Statistics and the Preferred Minimum Logit Chi-Square Regression Equations Involving the Dependent Variables (Y), Measures of Inner Containment (X_1), Delinquent Companions (X_2), and an X_1 by X_2 Interaction (X_3)

Dependent Variable	X_1 = Educational Expectations	X_1 = Educational Attachment	X_1 = Law 1	X_1 = Law 2
Y = log of the odds on Fights	[1] $\hat{Y} = 1.6 - .23(X_2)$ $X^2 = 20.51$, 20 d.f. $.5 > P > .3$	[2] $\hat{Y} = .16 - .23(X_2)$ $X^2 = 16.04$, 20 d.f. $.8 > P > .7$	[3] $\hat{Y} = 1.6 - .23(X_2)$ $X^2 = 13.98$, 20 d.f. $.9 > P > .8$	[4] $\hat{Y} = 1.6 - .23(X_2)$ $X^2 = 18.36$, 20 d.f. $.7 > P > .5$
Y = log of the odds on Petty Larceny	[5] $\hat{Y} = 1.5 - .31(X_2)$ $X^2 = 19.01$, 20 d.f. $.5 > P > .3$	[6] $\hat{Y} = .81 + 1.06(X_1) - .31(X_2)$ $X^2 = 20.31$, 19 d.f. $.5 > P > .3$	[7] $\hat{Y} = 1.5 - .31(X_2)$ $X^2 = 21.21$, 20 d.f. $.5 > P > .3$	[8] $\hat{Y} = 1.5 - .32(X_2)$ $X^2 = 19.05$, 20 d.f. $.7 > P > .5$
Y = log of the odds on Defiance	[9] $\hat{Y} = 1.6 - .90(X_1) - .27(X_2)$ $X^2 = 24.07$, 19 d.f. $.2 > P > .1$	[10] $\hat{Y} = .74 + .87(X_1) - .27(X_2)$ $X^2 = 28.76$, 19 d.f. $.1 > P > .05$	[11] $\hat{Y} = .99 + 1.4(X_1) - .65(X_2) - .25(X_1^2)$ $X^2 = 21.61$, 18 d.f. $.3 > P > .2$	[12] 3-Way Interaction

Cont. Str.	Del. fr.	Odds	Ratios (Str:W)
Str.	0	8.2	.96
	1-5	2.7	4.8
	6-10	.33	.44
Weak	0	8.5	
	1-5	.56	
	6-10	.75	

Table 3 -- continued

Dependent Variable	X_1 = Educational Expectations	X_1 = Educational Attachment	X_1 = Law 1	X_1 = Law 2
Y = log of the odds on Damaged Property	[13] $\hat{Y} = 2.4 - .32(X_2)$ $X^2 = 30.36$, 20 d.f. $.1 > P > .05$	[14] $\hat{Y} = 2.4 - .33(X_2)$ $X^2 = 28.09$, 20 d.f. $.2 > P > .1$	[15] 3-Way Interaction Cont. / Del fr. / Odds / Ratios (Str:W) Str. 0 / 81.0 / 3.6 1-5 / 5.3 / 1.5 6-10 / 1.7 / 2.3 Weak 0 / 23.0 1-5 / 3.6 6-10 / .75	[16] Goodman's Method $(X_1\ X_2)\ (XZ\ Y)$ $X^2 = 4.20$, 3 d.f., $P = .24$ Del. fr. / Odds / Ratios 0 / 53.5 / 1-5:0 .09 1-5 / 4.6 / 6-10:0 .02 6-10 / 1.0
Y = log of the odds on Drinks	[17] $\hat{Y} = 2.1 - .43(X_2)$ $X^2 = 19.81$, 20 d.f. $.5 > P > .3$	[18] $\hat{Y} = 2.1 - .43(X_2)$ $X^2 = 21.28$, 20 d.f. $.5 > P > .3$	[19] $\hat{Y} = 1.3 + .99(X_1) - .44(X_2)$ $X^2 = 18.63$, 19 d.f. $.5 > P > .1$	[20] $\hat{Y} = 1.6 + .73(X_1) - .42(X_2)$ $X^2 = 18.79$, 19 d.f. $.5 > P > .3$

(see Figure 1), in which he predicted the association between delinquent friends and delinquency would be negligible when controlling for measures of inner containment.

Moreover, significant interactions between measures of inner and outer containments and conformity are found in only three subtables ([11], [12], and [15]) of Table 3. None of these interactions, however, are in the direction reported by Hirschi (1969: 158). While the odds on conformity for low-stakes (weak inner containment) adolescents with no delinquent friends are lower than the corresponding odds for high-stakes (strong inner containment) adolescents with no delinquent friends in substables [11] and [15],[16] the odds on conformity for the low-stakes adolescent with many delinquent friends were not found to be a "great deal" lower than the corresponding odds for the high-stakes adolescents as suggested by Hirschi. Quite the contrary, the odds on conformity for subtables [11] and [12] reveal that the low stakes adolescent with many delinquent friends is actually less likely to commit delinquent acts than the high-stakes juvenile with an identical number of delinquent companions!

Discussion

The present research does not support the widely held belief that "idle hands are the devil's workshop." Results from this study, at least, indicate that programs designed to keep youth busy and "off

16. Subtable [12] revealed that there is no statistically significant difference between low- and high-stakes adolescents (with no delinquent friends) in relation to conformity.

the streets" as a deterrent to crime may fail. However, while studies by Hirschi (1969) and Hindelang (1973) support these results, Schafer (1969) found a slightly negative relation between participation in high school interscholastic sports and official delinquency when controlling for academic achievement and father's occupation. Thus, involvement in conventional activities as a deterrent to delinquency warrants further empirical investigation, because from a prevention and control viewpoint it represents one of the few variables with policy implications (i.e., as opposed to "sex" or "race," "involvement" is a manipulable variable).

If there is, in fact, a preventive effect due to involvement, future research must specify what types of activities are meaningful (e.g., sports, church, recreational, clubs, etc.) and under what conditions it occurs. Further, the processes by which these possible preventive mechanisms occur need to be specified. Is it due to a greater exposure to noncriminal influences, stronger social controls, lack of time, selection, or some combination of these?

Evidence from these data also fails to support Reckless' (1967) hypothesis that inner containment plays the larger role in controlling deviance. The results in Table 3 suggest that at least one element of environmental pulls (or outer containment) -- number of delinquent companions -- may be more important in controlling crime. In fact, the (supposed) association between inner containment and conformity vanishes in seven of the subtables when controlling for delinquent associations. The effect of inner containment is sometimes significant, however, in

the other subtables. Further research must specify the conditions under which different elements of inner and outer containments have a deterrent effect on delinquency. Be as it may, the present findings lend no empirical support to Reckless' (1967) prediction of more delinquency under conditions of weak inner containment and strong outer containment than in the reverse situation. Furthermore, Table 3 yielded only three significant interactions among elements of inner and outer containment and conformity, and none of these interaction effects were in the direction reported by Hirschi (1969).

There are, however, many other variables encompassed by the control perspectives not presented in this study. This research examined only the relations among two aspects of outer containment, three measures of inner containment, and five delinquent acts. Moreover, there are two methodological differences which distinguish this study from Hirschi's: (1) both boys and girls were included in the present analyses, and (2) while Hirschi (1969) included six different acts in his measure of delinquency, separate analyses for five acts were conducted in this study, with the focus on conforming rather than deviant behavior. Moreover, while four of the offenses used by Hirschi were also encompassed by the present study (petty larceny,[17] fighting, and property damage), his other two acts (grand larceny and car theft) were clearly of a more serious nature than the status offenses utilized here (defiance and drinking).

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17. Hirschi (1969) included two measures of petty larceny in his delinquency index: (1) Have you ever taken little things (worth less than $2.00) that did not belong to you? (2) Have you ever taken things of some value (between $2.00 and $50.00) that did not belong to you?

Finally, even though this study was couched in terms of the containment perspective, the results are also applicable to Hirschi's perspective concerning the social bond. Both perspectives, therefore, received little empirical support using the present data.

II

CHANGING ATTITUDES TOWARD CAPITAL PUNISHMENT

Despite the persistence of legal, moral, and political controversies over capital punishment during the past 150 years, abolition groups were active and moderately well organized during only three periods of U. S. history: the 1840's, 1910's, and late 1950's (Bedau, 1964). Although these movements resulted in the abolition or severe restriction of the death penalty in only ten states by 1962, the abolitionists' activities may have had a number of other effects.

First, ever since the founding of the English colonies in America there has been a trend toward restricting capital punishment. Although North Carolina required death for over 21 acts as late as 1837 (Bedau, 1964: 7), capital punishment for many crimes (e.g., adultery, statutory rape, buggery, and perjury in a capital trial) have been removed from the criminal statutes.

Second, the Supreme Court has become more sensitive to capital defendants' rights (Skinner, 1976): (1) In Powell v. Alabama, 1932, the Court held that counsel must be provided for capital defendants. In subsequent decisions it (2) ruled against racial discrimination in jury selection (Patton v. Mississippi, 1947), (3) provided protection against coerced confessions (Fikes v. Alabama, 1957), and (4) ruled that

veniremen who expressed general objections to or religious scruples against capital punishment could not be excluded from capital juries (Witherspoon v. Illinois, 1968).[1]

Third, despite the ostensible failure of total abolition in the U. S., the number of executions (beginning in 1930) decreased from a high of 199 in 1935 to zero in 1968 and subsequent years (Hindelang et al., 1973) until the execution of Gary Gilmore in 1977. An increased reluctance by juries to impose the sentence and a greater willingness by governors to commute death sentences to life imprisonment may partially explain the declining number of executions.

In view of these three consequences of the abolitionist movement, it is hardly surprising that Erskine (1970) reported that public support for the death penalty in murder cases declined from 68 percent in 1953 to 42 percent in 1966. This trend reversed after 1966, however, and the level of support rose to 51 percent in 1969. The most recent data, from the 1976 National Opinion Research Center [NORC] General Social Survey, indicate that over 65 percent of Americans favor capital punishment for murder.

Numerous studies (Vidmar and Ellsworth, 1974; Sarat and Vidmar, 1975; Smith, 1975; Rankin, 1977) have merely recognized this increase in favorable attitudes toward the death penalty since 1966. Other recent survey research (e.g., Gelles and Strauss, 1975; Thomas and Foster,

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1. Because this study is concerned with the events that occurred prior to the increased support for capital punishment beginning sometime between 1966 and 1969, more recent Supreme Court decisions concerning the death penalty are not relevant.

1975; Fattah, 1976) has revealed correlates of death penalty attitudes using cross-sectional data; but these may provide only a dubious basis for explaining change.

Gelles and Straus (1975) claim to have found evidence that physical violence within the family is positively correlated with support for capital punishment. Experiencing such violence supposedly produces a personality structure (e.g., a dogmatic or authoritarian personality) which is an intervening variable between family violence and death penalty attitudes. Indeed, research by Conrey and Newmeyer (1965), Crosson (1966), Boehm (1968), Rokeach and McLellan (1970), Jurow (1971), Snortum and Ashear (1972), and Rokeach and Vidmar (1973) has revealed that advocates of capital punishment are more likely than abolitionists to make high scores on numerous psychological measures of conservatism, dogmatism, and authoritarianism. Furthermore, Fattah (1976: 13) suggests that death penalty attitudes are stable and resistant to change and that these attitudes are unlikely to be influenced by period effects such as the rising concern over violent crimes.

While the foregoing studies have indicated various personality and familial correlates of death penalty attitudes, these characteristics are not necessarily relevant as antecedents of short-term attitudinal change. Long-run trends in cohort succession and migration patterns may alter personality characteristics or familial structure, resulting in some of the changes in the death penalty cited earlier (e.g., restricting the number of capital offenses). However, since it is highly unlikely that socialization antecedents changed rather abruptly

about a generation ago, cohort succession and migration patterns can not adequately account for short-term fluctuations. Only historical or period effects (e.g., concern over the rising violent crime rate) could adequately explain the recent rise (since 1966) in support for capital punishment.

Furthermore, this rise is probably not a result of an increase in the number of personal victimizations. Surveys conducted for the President's Commission on Law Enforcement and Administration of Justice (The National Crime Commission) found little relationship between victimization and attitudes toward crime. Biderman et al. (1967) found no difference in "anxiety" scores between victimized and nonvictimized respondents. Similarly, Ennis (1967) found no relation between victimization and "concern" about crime. Both Biderman et al. (1967) and McIntyre (1967) found that victimization experiences (even in dramatic crimes such as robbery) did not have any long-term effects on victims' attitudes and behaviors (e.g., being overly conscious about locking doors to prevent burglaries).

Thus, personality characteristics and personal victimizations can not account for the short-term rise in public support for capital punishment since 1966. Rather, it is the position of this paper that the increasing support is <u>part</u> of a more general "law and order" syndrome which intensified approximately three years after relatively large increases in the officially reported violent crime rate were publicized. Utilizing five years of National Opinion Research Center General Social Surveys (1972, 1973, 1974, 1975, 1976) and data on official violent crime rates (Federal Bureau of Investigation, 1968, 1969, 1970, 1971, 1972,

1973, 1974, 1975, 1976), this study reveals a rather strong, positive nonlinear relation between support for capital punishment and violent crime rates across regions of the U. S.

The Sample and Question

The annual General Social Surveys conducted by the National Opinion Research Center [NORC] from 1972-76 provide an opportunity to investigate the American public's changing attitudes toward capital punishment. The target population comprised the noninstitutionalized population of the continental U. S., 18 years of age and older. The 1972-74 designs provided a standard multistage area probability sample to the block or segment level. Quota sampling based on sex and age was used at the block level. Only half of the 1975 and 1976 samples was selected by means of the design used from 1972-74; the remainder of these samples was chosen according to a full probability design.[2] Each year approximately 1,500 respondents were asked, "Do you favor or oppose the death penalty for persons convicted of murder?" with "favor," "oppose," and "don't know" being the possible responses (see Appendix A).

Since this question asked about death only in murder cases, the responses may not indicate support for capital punishment for other crimes. While fewer respondents may favor death for less serious crimes (e.g., rape, robbery, or arson), more persons would probably favor its use if the question included specific contingencies, such as the gruesome details of a murder.

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2. Consult Appendix A of the NORC General Social Survey codebooks for more detailed descriptions of the sampling designs.

In fact, past studies have indicated that there are varying levels of death penalty support depending upon the circumstances of the case. For example, both Jurow (1971) and a 1973 Harris survey (reported in Vidmar and Ellsworth, 1974) found that even though many persons favored capital punishment at a general, abstract level (i.e., no specific contingencies were included in the question that asked about death for persons convicted of murder), this support decreased substantially when the respondents were asked how they would behave if serving on a jury. This suggests that the number of executions may decrease because jurors would be unwilling to convict capital defendants. Moreover, persons favoring capital punishment at the general level wanted its application contingent upon the circumstances of the case, the character of the defendant, or both (Vidmar and Ellsworth, 1974: 1267).

On the other hand, when respondents were confronted with a choice between mandatory or no *death penalty for persons* convicted of premeditated murder, Ellsworth and Ross (1975) found that 63 percent chose the former. They reasoned that there were a large number of persons "who so strongly favor the execution of <u>some particular</u> felons that they are willing, if necessary, to tolerate a similar fate for other felons whom they believe <u>not</u> to merit so severe a penalty" (Ellsworth and Ross, 1975: 167). Regardless of how the question is phrased, however, only the NORC national survey has consistently included an identical question about the death penalty since 1972, thus facilitating replicated cross-sectional research.

The decision to compute subsequent odds and odds ratios on "Favor," relative to "Oppose/Don't Know," was determined by partitioning the likelihood ratio chi-square statistic (X^2) in various 2-way contingency tables (capital punishment by variables 7, 9-13 of Appendix A). Further 3-way cross-classifications (capital punishment by year and color or region) were previously partitioned (Rankin, 1977) using the procedure described by Duncan (1975). This method can reveal how the several categories of an uncollapsed polytomous variable interact with the other variables, since these categories often do not behave similarly. Determining how a polytomous variable relates to the other variables, in turn, is logically prior to the decision on how to combine categories of this variable (if such a step can be justified at all). Models were thus specified which allowed different contrasts between response categories of capital punishment and the other independent variables. The dichotomy "Favor v. Oppose/Don't Know" captured all of the significant contrasts in both the 2-way and 3-way tables and is, therefore, utilized in the following analysis.[3]

"Odds" are computed in a fashion familiar to those acquainted with betting. For example, the odds on "Favor," relative to (i.e.,

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3. One plausible interpretation is that a number of the "don't know" respondents in the NORC survey were actually expressing reservations about the death penalty and were not simply without opinions. While the drop in percentage of "don't know" responses from 7.8 percent in 1972 to 4.7 percent in 1976 may reflect decreasing uncertainty generated by the controversy over capital punishment, it is still quite a high level relative to other NORC questions (see Smith, 1975: 265). This could indicate that respondents found this a difficult question to answer due to the gravity of their decisions and generality of the question.

divided by) "Oppose/Don't Know," are 1.12 in 1972 because 852 persons responded "favor" and 757 responded "oppose" or "don't know." Since the corresponding odds on "Favor" are 1.90 in 1976, the odds ratio "1976:1972" is 1.90 divided by 1.12, or 1.70. This ratio (1.70) is greater than 1.0, indicating that the odds on "Favor" in 1976 are greater than the corresponding odds in 1972.

Victimization and Death Penalty Attitudes

The experience of being assaulted, robbed, or even burglarized could have an effect on the victims' attitudes toward punishment. For example, victims could develop punitive attitudes, resulting in a greater demand for harsh penalties such as capital punishment. However, the findings by Biderman et al. (1967), Ennis (1967), and McIntyre (1967) are confirmed here; it appears that victimization experiences do not effect the victims' attitudes to a great extent.

The present study investigated the relations among each of four NORC victimization measures (see V_1 to V_4 of Appendix A) with the year of the survey and responses to the question on capital punishment.

These four tables were analyzed by Goodman's (1970) method for multiway contingency tables.[4]

No significant relation was detected between "assault" and capital punishment. Moreover, the associations between "robbery" or "burglary" and the death penalty were in the opposite direction from that expected. The preferred models (see footnote 4) included separate effects of year and robbery (X^2 = .07, d.f. = 1, p = .80) or burglary (X^2 = .17, d.f. = 1, p = .68) on capital punishment. The odds ratios "no: yes" were 1.50 and 1.54 for "robbery" and "burglary," respectively. Thus, persons who were not victimized were more likely to favor the death penalty than those who were robbed or burglarized. Only "threat" (i.e., "Have you ever been threatened with a gun, or shot at?") was significantly associated with capital punishment in the hypothesized direction. Both year and "threat" were separately associated with capital punishment (X^2 = .001, d.f. = 1, p = .97). The odds ratio "yes: no" is 1.27, a rather small but significant relation. Generally, then these results discredit the idea that victimization experiences are accounting for the increasing support for capital punishment, since

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4. This technique involves the examination of a set of hierarchical models, each of which is described by a particular combination of main and interaction effects of the independent variables with the dependent variable. Each model is characterized by its "goodness of fit" to the observed data, as evaluated by the model's likelihood ratio chi-square statistic and degrees of freedom. Hierarchical models are compared by subtracting chi-square values and degrees of freedom to yield new chi-square statistics which are then examined for improvement of fit. A preferred model is selected on the basis of "goodness of fit" and "parsimony" and cannot be significantly improved upon by the inclusion of additional effects. Interpretation of the preferred model is clarified by computing odds and odds ratios (from the expected frequencies) which describe the magnitude of each effect.

(1) the year effect did not disappear when the victimization measures were included in the model, and (2) only one of the four victimization measures was even significantly related to death penalty attitudes in the hypothesized direction.

Law and Order Syndrome

The increasingly favorable sentiment toward capital punishment may be part of a more general "law and order" syndrome, which is in turn associated with the rapidly rising violent crime rate.[5] Figure 1 presents the proposed relationship between the violent crime rate and measures of the law and order syndrome (the syndrome itself is unobservable). Favorable death penalty opinion may be a retributive (Vidmar, 1974) or deterrent (Thomas and Foster, 1975) reaction to a growing concern about crime.

Heightened Concern about Crime

Although the U. S. violent crime rate (as reported by the F.B.I. in Uniform Crime Reports, 1968-75) had been rising slowly but erratically since 1943, it was not until 1963 that these increases became relatively large. Between 1943 and 1963 the reported violent crime rate rose from 109.2 to 166.7 per hundred thousand, an increase of only 57.5 over a span of 20 years. Within the next ten years, however, this same rate increased from 166.7 in 1963 to 414.3 in 1973. Concomitantly, national

5. According to preliminary reports issued by the F.B.I., the general violent crime rate for the U.S. decreased in 1976. Since this study (1) was completed before the publication of the 1976 Uniform Crime Reports and (2) utilizes three year time lags between the violent crime rate and public attitudes toward the death penalty, the 1976 UCR data were not used.

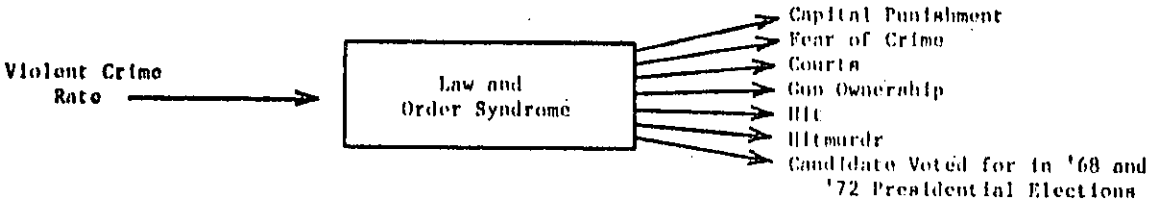

Figure 1. Proposed Relationship between the Violent Crime Rate and Measures of the Law and Order Syndrome

public opinion surveys revealed a hieghtened concern about crime. Opinion polls conducted for the National Crime Commission found that respondents believed crime was increasing and were most concerned about crimes of violence (McIntyre, 1967).

Until 1966, international issues were the chief concern of those Gallup respondents who were asked open-ended questions about national problems. "Crime," in fact, was not mentioned by enough persons to be included in its list of major problems. However, in a 1966 national survey conducted for the National Crime Commission, NORC interviewers asked respondents which of six major domestic problems they had been most concerned about recently. "Crime" was the second most frequently chosen problem (McIntyre, 1967).

Another survey of 1,000 Boston homeowners found that only 18 percent defined the "urban crisis" in terms of housing, urban renewal, pollution, and transportation, while merely 9 percent mentioned jobs. The "urban crisis" was primarily identified with crime, violence, and racial tension (Wilson, 1968: 26). In January of 1968, the Associated Press asked members of Congress what their constituents were most concerned about during the Christmas recess. Overwhelmingly, crime and riots overshadowed all other issues (Harris, 1969). Moreover, a recent survey by Thomas and Foster (1975) found that many respondents perceived crime as increasing rapidly.

NORC respondents were asked whether the U. S. was spending too much, too little, or about the right amount of money on "halting the rising crime rate" (V_5 of Appendix A). This variable was cross-classified by year, capital punishment, and a similar question (V_6 of

Appendix A) regarding the "space exploration program" (to control for respondents who might believe that the U. S. over-spends or under-spends on other programs). Regardless of year, the odds ratios "R:M" (see Table 1) are all greater than 1.0, indicating that persons who responded "about right" to the question on "halting the rising crime rate" (V_5) were more likely to favor the death penalty than those who responded "too much." However, this relation is slight within the responses "about right" and "too much" of the question on the "space program" (V_6). Surprisingly, the odds ratios "Too Little:Too Much" ("L:M" in Table 1) from 1973-75 are .81 (or less than 1.0) within the responses "about right" and "too much" of V_6. However, the remainder of the odds ratios "L:M" are all quite strong and in the expected direction (i.e., greater than 1.0). Generally, then, the greater the concern with "halting the rising crime rate," the greater the support for capital punishment (since 10 of the 12 odds ratios in Table 1 are in the expected direction).

Source of Concern

Although the sheer increase in violent crimes may have initiated national concern, the crime problem developed political overtones in 1967 as a result of the attention given to law and order, civil rights issues, and student demonstrations (Harris, 1969: 7). Early in 1967, the National Crime Commission, created a year and a half earlier to study the causes of the rising crime rate, made its report to the President and Congress. In 1968 President Johnson sent Congress a message entitled "The Challenge of Crime to Our Society," which contained a 22 point legislative program of "remedies" for the crime problem. Significantly,

Table 1. Odds on Favoring Capital Punishment (P), by Year (Y) of Survey, Concern with Spending on Crime, and Concern with Spending on the Space Exploration Program

Concern on Space (S)	Concern on Crime	Odds[a] Favor:Oppose 1973-5[b]	Odds[a] Favor:Oppose 1976	Ratios 1973-5 L:M	Ratios 1973-5 R:M	Ratios 1976 L:M	Ratios 1976 R:M
Too Little	Too little(L)	2.39	7.37	1.51	1.39	4.21	1.46
	About right(R)	2.20	2.55				
	Too much(M)	1.58	1.75				
About right	Too little	1.05	3.25	.81	1.08	2.26	1.14
	About right	1.41	1.64				
	Too much	1.30	1.44				
Too much	Too little	1.47	4.52	.81	1.08	2.26	1.14
	About right	1.97	2.28				
	Too much	1.81	2.01				

[a]Computed from fitted frequencies under model: {SYLRM}, {LSP}, {YSP}, {RP} (X^2 = 4.42, d.f. = 8, p > .8).

[b]Using the partitioning procedure described by Duncan (1975), it was found that the years 1973-75 could be combined without losing any significant effect.

the King and Kennedy assassinations also occurred in 1968, which all but assured Congressional passage of the Omnibus Crime Control and Safe Streets Act (Harris, 1969). Moreover, "crime in the streets" became a widely discussed topic during the 1968 presidential campaign. Wallace's campaign slogan was "law and order," and Nixon also chose crime as one of his major campaign issues.

This atmosphere most assuredly sensitized the American public to the crime issue. The growing concern about crime apparently coincided with a hardening of attitudes toward criminals, with a greater demand for harsh penalties such as capital punishment.

NORC respondents were asked who they voted for in the 1968 and 1972 presidential elections (V_7 and V_8 of Appendix A). Both of these measures were cross-classified by the year of the survey, political party identification, and capital punishment, and the tables were analyzed by the method described by Duncan (1975). The odds and odds ratios for the preferred models are presented in Tables 2 and 3.

The results indicate that those respondents who voted for the "law and order" candidates (i.e., Nixon and Wallace) in the two presidential elections were more likely than the Humphrey voters, McGovern voters, and non-voters to favor capital punishment, regardless of political party identification. The odds ratios for "Nixon:Humphrey" and "Wallace:Humphrey" voters in the 1968 elections and "Nixon:McGovern" voters in the 1972 elections are all greater than 1.0.

Other findings also indicate that public opinion can be influenced by politicians' statements (Bogart, 1972: 52; Roll and

Table 2. Odds on Favoring Capital Punishment (P), by Political Party Identification and Presidential Candidate Voted for in 1968, as Reported in the 1972 and 1973 Surveys (Y)

Party ID (I)	Candidate Voted for (C)	Odds[a] Favor:Oppose 1972	1973	Ratios N:H	W:H	D:H
Republican	Humphrey(H)	1.45	1.97	1.47	2.85	.74
	Nixon(N)	2.13	2.90			
	Wallace(W)	4.13	5.64			
	Didn't Vote (D)	1.07	1.46			
Democrat/ Independent[b]	Humphrey	.94	1.29	1.47	2.85	.74
	Nixon	1.39	1.89			
	Wallace	2.70	3.68			
	Didn't Vote	.70	.95			
	Ratio					
	Rep:Dem/Ind	1.54				
	1973:1972	1.36				

[a]Computed from fitted frequencies under model: {IYC}, {YP}, {IP}, {CP} (X^2 = 13.28, d.f. = 10, p = .21).

[b]Using the partitioning procedure described by Duncan (1975), it was found that the Democrats and Independents could be combined without losing any significant effect.

Table 3. Odds on Favoring Capital Punishment (P), by Political Party Identification and Presidential Candidate Voted for in 1972, as Reported in the 1973–1976 Surveys (Y)

Party ID (I)	Candidate Voted for (C)	Odds[a] Favor:Oppose 1973–5[b]	1976	Ratio N:M	Ratio D:M
Democrat	McGovern(M)	1.07	1.34	2.46	1.08
	Nixon(N)	2.63	3.30		
	Didn't Vote(D)	1.16	1.46		
Independent	McGovern	.74	.93	2.89	1.74
	Nixon	2.14	2.69		
	Didn't Vote	1.29	1.62		
Republican	McGovern	.51	.64	5.76	2.98
	Nixon	2.94	3.70		
	Didn't Vote	1.52	1.91		
	Ratio 1976:1973-5	1.25			

[a]Computed from fitted frequencies under model: {IYC}, {ICP}, {YP} (X^2 = 5.46, d.f. = 8, p = .71).

[b]Using the partitioning procedure described by Duncan (1975), it was found that the years 1973–5 could be combined without losing any significant effect.

Cantril, 1972). Thus, the initial increase in support for capital punishment in 1966 may have resulted from political candidates (i.e., Nixon and Wallace) who advocated harsh criminal sanctions because of the rising crime rate. The public's concern about violent crimes increased, and with it a demand for harsh penalties.

Fear of Crime

Gelles and Straus (1975) and Thomas and Foster (1975) argue that perceptions of the volume of crime lead to fear of victimization and attitudes regarding capital punishment. Their argument is consistent with the findings of previous opinion surveys which have revealed an increase in perceived crime (McIntyre, 1967; Thomas and Foster, 1975), a heightened fear of victimization (Executive Office of the President, 1973), and increasing support for the death penalty (NORC, 1972-76). Could it be that fear — as opposed to actual victimization — of criminal attack is a major psychological determinant of death penalty attitudes?

Gelles and Straus (1975) found evidence of a positive relation (with no intervening variables specified) between fear of victimization and support for the death penalty. Thomas and Foster (1975) purportedly found an indirect relation, since the bivariate association between fear and capital punishment disappeared when controlling for "willingness to employ punishment as a response to criminality." The latter result is seemingly tautological, however, since by definition those who support capital punishment are "willing to employ punishment as a response to criminality." Thomas and Foster interpreted their results as supporting

a complex sociopsychological model, one which assumes that support for capital punishment reflects a belief in its deterrent efficacy.

On the other hand, Vidmar (1974) found only a small relation between fear and death penalty opinion. Contrary to Thomas and Foster, he found retribution to be more important than a belief in deterrence in determining support for capital punishment. Similarly, Fattah (1976) reported that American/Canadian and rural/urban comparisons, as well as comparisons by age, color, and sex suggest a negative rather than a positive relation between fear of victimization and support for capital punishment. However, Fattah's research is fraught with errors. For example, Fattah (1976: 10) argues that since females indicate more fear but less support for capital punishment than males, sex comparisons reveal "more clearly than ever" that death penalty attitudes are "independent from the degree of fear of victimization." What Fattah fails to realize is that fear and sex (where female = 0, male = 1) could both be positively associated with capital punishment even though they are negatively correlated with each other.

The present research also investigated the relationship between fear of victimization (V_9 of Appendix A) and death penalty attitudes. No significant relation was detected when fear and capital punishment were cross-classified by year of survey and color in a 4-way contingency table or by year, color, and place of residence (i.e., size of the community in which the respondent lived) in a 5-way table. However, an association between fear and death penalty attitudes did appear when the 4-way table was further cross-classified by sex. Since males were more

likely to favor capital punishment but less likely to fear victimization than females, no association between fear and capital punishment was detected when sex was not included in the preferred model ($X^2 = 16.5$, d.f. = 11, $p > .1$): {YSCF}, {FP}, {SP}, {CP}, {YP}, where Y = year, S = sex, C = color, F = fear, and P = capital punishment. Each of the variables was separately associated with death penalty attitudes. However, the odds ratio "yes:no" (responses to the question on fear) was merely 1.3. This slight association may be a result of how the question was phrased. McIntyre (1967) found that most persons feared violence by strangers in unfamiliar surroundings, while the question on fear of victimization asked respondents whether they would be afraid to walk alone at night within one mile of their home.

Regardless of the strength of the association between fear of victimization and capital punishment, however, the causal relation posited by Gelles and Straus (1975) and Thomas and Foster (1975) is questionable. As Thomas and Foster themselves indicate, a number of alternative causal orderings among their array of attitudinal variables could have been selected. For example, death penalty advocates might justify their opinions by stating a fear of crime. This problem is alleviated in the present analysis, since fear and death penalty attitudes are viewed merely as correlates — one antecedent of that correlation being the rising violent crime rate (see Figure 1).

Other Correlates of Death Penalty Attitudes

Other correlates of death penalty attitudes likewise support the claim that the "law and order" syndrome intensified in the 1960's.

The following analysis reveals that death penalty advocates also favor tough courts, laws, and policemen.

Past NORC surveys asked respondents their attitudes toward the courts (V_{10} of Appendix A). The preferred model contained the separate effects of color, year, and "courts" on the response to the question on capital punishment ($\chi^2 = 9.78$, d.f. = 12, $p = .63$). Responding "not harshly enough" and "about right" (relative to "too harshly") raised the odds on favoring capital punishment by factors of 5.1 and 1.5, respectively. Thus, persons favoring tough courts are also more likely to favor the death penalty. Moreover, further analysis reveals that the association between capital punishment and "courts" remained the same over time. The proportion of respondents favoring tough courts rose from .74 to .86 in just five years (NORC, 1972-76), just as support for capital punishment itself increased.

NORC respondents were also asked two questions concerning police control (V_{11} and V_{12} of Appendix A). Analysis of the tables, year, color sex, and capital punishment by each of these two measures indicates that both approving of a policeman striking adult male citizens in general ($\chi^2 = 13.48$, d.f. = 19, $p > .8$) and murder suspects in particular ($\chi^2 = 17.65$, d.f. = 18, $p > .3$) were associated with support for capital punishment.[6] Responding "yes" (relative to "no") to the questions on police control raised the odds on favoring capital punishment by 1.66

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6. Smith (1975) found similar results but analyzed only 1973 NORC data.

and 2.06 for V_{11} and V_{12}, respectively. Each of the variables was included in the preferred models and was separately associated with capital punishment.

These results correspond with previous studies which found that support for the death penalty is associated with a willingness to use violence and punishment for social control. Support for tough police and tough courts is also associated with a desire to have harsh criminal sanctions (Gelles and Straus, 1975).

NORC respondents were also asked their opinions of wiretapping (V_{13} of Appendix A). Color and the measure of wiretapping were included in the preferred model ($X^2 = 5.75$, d.f. = 5, $p = .33$), and each was separately associated with capital punishment. The odds ratio "approve: disapprove" was 2.46, indicating a rather strong, positive association between approval of wiretapping and favoring capital punishment.

The assumption that persons who own guns would be more likely to favor harsh criminal sanctions such as capital punishment was tested by analyzing the 3-way table, capital punishment by year of survey and gun ownership (V_{14} of Appendix A). Both year and gun ownership were separately related to death penalty attitudes ($X^2 = 1.15$, d.f. = 1, $p = .73$). The odds ratio "yes:no" (responses to the question, "Do you happen to have in your home any guns or revolvers?") was 1.48, indicating a positive association between owning guns and favoring capital punishment.

In sum, there is considerable evidence that support for the death penalty is associated with a concern about crime. Moreover, as

the following results suggest, this concern is related to the rising violent crime rate.

Violent Crime Rate

As noted previously, various opinion surveys indicate that people perceive the crime rate to be increasing and are most concerned about violent crimes committed by strangers in unfamiliar surroundings (McIntyre, 1967). Also, the public disproportionately perceives large increases in those offenses that are most visible and feared [e.g., crimes of violence such as murder, rape, assault, and robbery (Thomas and Foster, 1975)].

During a period of widespread concern with crime a greater number of crimes will probably become known to the public. This concern would be reflected in a greater amount of media coverage given to crime-related topics, which in turn would increase the number of crimes known to the public. If this is true, the attitudes of persons not personally victimized could be altered through "indirect" victimization. "If direct victimization is increasing and if it becomes known to the public . . ., then the indirect victimization of the public will also increase" (Conklin, 1971: 374). Similarly, McIntyre (1967) argues that most persons' attitudes about crime and crime trends are derived vicariously.

It is possible, therefore, that attitudes are influenced by a perceived increase in the violent crime rate, whether or not that perception reflects an actual increase. Politicians and the mass media

can present criminal statistics in such a way as to convince the public that crime rates are increasing, even if they actually are not (McIntyre, 1967: 35).

In order to test the association between the increasing support for capital punishment and a reported increase in the violent crime rate, the NORC measure of capital punishment from 1972 to 1976 was cross-classified by region (Northeast, North Central, South and West). Public opinion is probably affected by violent crimes outside of the city or even the state in which they occur. For example, media coverage of the murderer "Son of Sam" was certainly not restricted to New York City or even the state, although the amount of publicity was greater within a certain radius. The same can be said of other less extreme cases of violent crimes. National controversies such as the rising violent crime rate require a more global context than the city or state. Thus, the NORC data were cross-classified by regions. Violent crime rates for the corresponding regions were obtained from the Uniform Crime Reports (F.B.I., 1968-75), although from earlier years than the NORC data so that time lags of one to four years could be examined. While it is the opinion of many criminologists that F.B.I. statistics may not accurately reflect the "actual" violent crime rate, for the purposes of this study the relevant data are those which are the most widely reported (i.e., UCR).

The data were analyzed by the minimum logic chi-square regression technique[7] (Theil, 1970) with the dependent variable

$$Y_{ij} = \log_e [(A_{ij} + .5)/(B_{ij} + .5)],$$

where A_{ij} and B_{ij} are the number of persons responding "favor" and "oppose/don't know," respectively, to the question on capital punishment in the ith region and jth classification of color. Independent variables included the linear and squared scoring[8] of the violent crime rate in general, plus each of its specific components (i.e., the murder rate, forcible rape rate, robbery rate, and aggravated assult rate). Dummy variables were defined for each of the four regions and five years included in the NORC surveys.

If the increase in favorable attitudes toward capital punishment is solely a result of the rising violent crime rate, no year effect would be included in the preferred regression model. In other words, if the inclusion of any of the five dummy variables for the years 1972-76 did not significantly improve upon the preferred model [i.e., reduce the

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7. This technique uses weighted least squares to estimate the linear regression of the logit of a dichotomous dependent variable on different combinations of scaled and dummy independent variables. Various models including main and interaction effects of the independent variables on the dependent variable were estimated. Each of these models is characterized by a "goodness of fit" statistic, the logit chi-square (Y^2) and degrees of freedom associated with the model. A preferred model includes all of the main effects and 2-way interactions necessary to obtain an adequate fit (i.e., one which cannot be improved upon by the addition of other main or interaction effects) to the observed data).

8. Tests for curvilinearity are conducted by including a squared term in the model and checking for significant improvement in the same manner in which tests for main and interaction effects are conducted. Linear and main effects are usually retained in the preferred models even though squared and interaction terms provide significant improvement.

logit chi-square (Y^2) value by at least 3.84 with 1 d.f.], the change in attitudes would be "explained" by the effect of the violent crime rate.

Even though an acceptable fit could be obtained without year in the logit regression model, the inclusion of the dummy variable for "1975" and a "1975/violent crime rate" interaction did improve upon it. No specific crime rates (i.e., for murder, rape, robbery, or assault) were included in the preferred model ($Y = 11.99$, d.f. = 12, $p > .3$):

$$\hat{Y} = -3.857 + .020X_1 - 24.363X_2 + .124X_3 - .001X_4 - .001X_5 - .068X_6 - .263X_7$$

where X_1 = general violent crime rate (3 year lag)[9]

X_2 = dummy variable for the South

X_3 = interaction term between X_1 and X_2

X_4 = squared term for X_1

X_5 = interaction term between X_2 and X_4

X_6 = dummy variable for 1975

X_7 = interaction term between X_2 and X_6.

Figure 2 graphically illustrates the logit regression lines for this model. The unbroken lines represent the expected log odds computed from the preferred model.

The most striking feature of Figure 2 is the absence of a linear relation between the violent crime rate and the log odds on favoring capital punishment. While the inclusion of X_1 gives the regression lines a "slope," a squared term (X_4) adds a "bend" (see

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9. Prior analysis indicated that the inclusion of a three year lag between the opinion surveys and violent crime rates yielded consistently larger decreases in Y^2 values than did one, two, or four year lags.

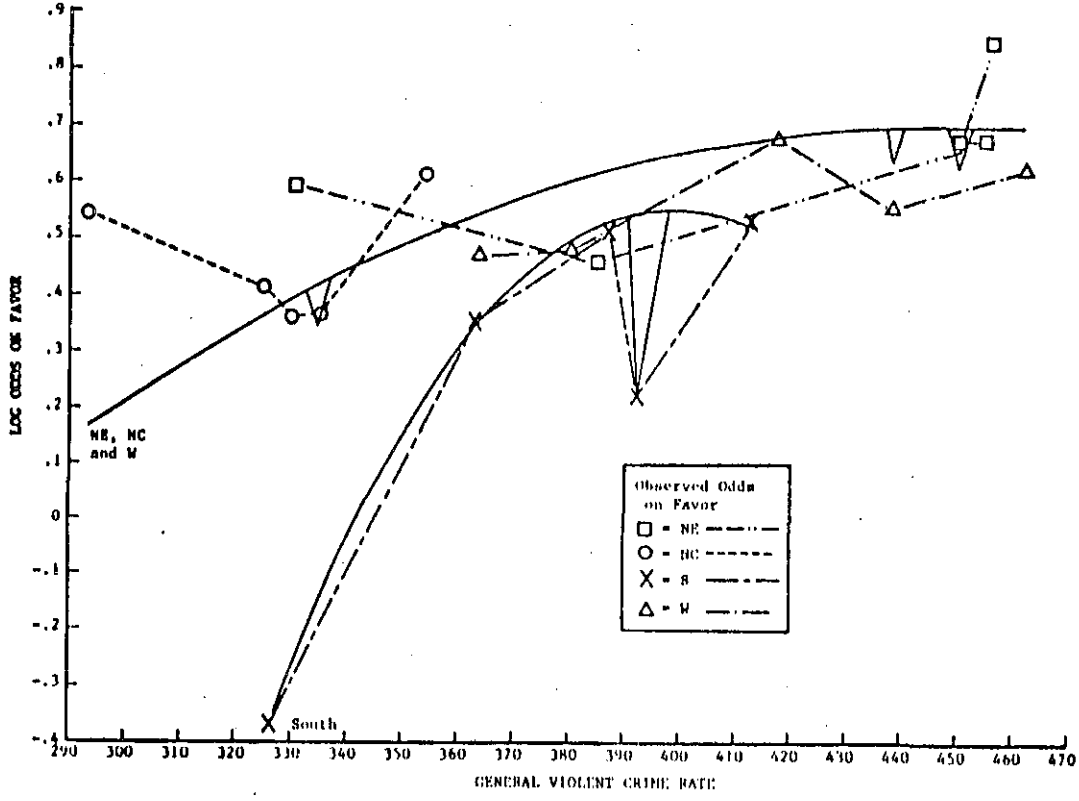

Figure 2. Log Odds on Favoring Capital Punishment, by the General Violent Crime Rate, Region, and Year of Survey

footnote 8). Although the slope is positive, it grows less steep as the violent crime rate increases.

The four "outliers" in the regression lines of Figure 2 represent the effect of X_6 (dummy variable for "1975"). The relatively greater outlier in the South results from the inclusion of X_7 (interaction between the "South" and "1975") in the preferred model. The effects of these variables were probably significant because the percentage of those favoring capital punishment increased in each of the annual NORC surveys except 1975 (when it dropped to 60.1 percent from 63.0 percent the year before), while the corresponding violent crime rate rose in each succeeding year. The South differs from the other regions in that its slope is steeper and the "bend" is much sharper. The South's relatively lower log odds on "Favor" could be the result of the higher proportion of blacks living there. Prior research (Erskine, 1970; Rankin, 1977), in fact, has revealed that support for capital punishment is much lower among blacks than whites.

In order to test this hypothesis, year, region, and capital punishment were further cross-classified by color. The preferred logit regression equation (see Figure 3) is ($Y^2 = 24.90$, d.f. = 31, $p > .7$):

$$\hat{Y} = -3.513 + .019X_1 - .007X_2 - .213X_3 - .957X_4 - .361X_5 - .165X_6 - .001X_7 - .001X_8$$

where X_1 = general violent crime rate (3 year lag)

X_2 = rape rate (3 year lag)

X_3 = dummy variable for the South

X_4 = dummy variable for color (0 = whites, 1 = blacks/others)

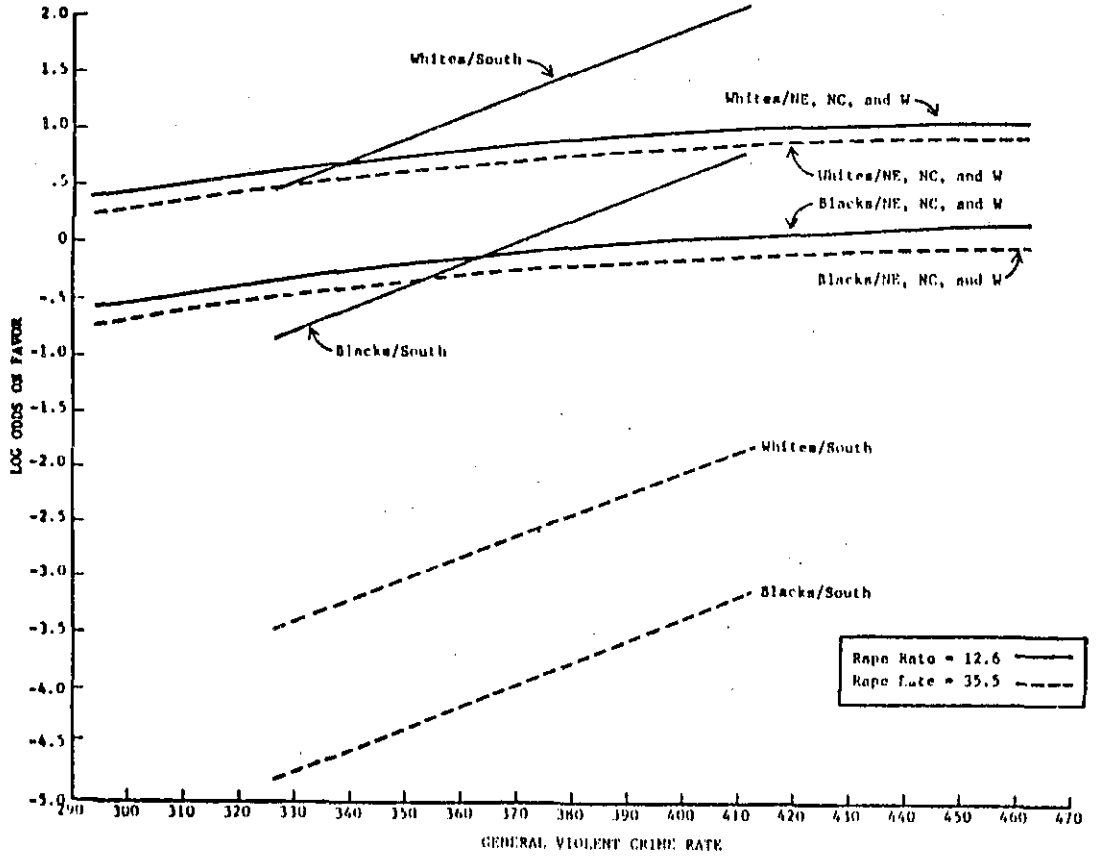

Figure 3. Log Odds on Favoring Capital Punishment, by the General Violent Crime Rate, Rape Rate, Region, and Color

X_5 = interaction term between X_3 and X_4

X_6 = interaction term between X_2 and X_3

X_7 = squared term for X_1

X_8 = interaction term between X_3 and X_7.

The dummy variable for the South (X_3) must still be included in the preferred model, although the regression coefficient decreased substantially from -24.363 to -.213 with the inclusion of color and the rape rate in the model. More importantly, however, the dummy variable for 1975 was not needed since its inclusion in the chosen model dropped the logit chi-square (Y^2) value by only 3.62 with one degree of freedom (not quite significant at the .05 level). Thus, the increased support for capital punishment has been "explained" by the variables in the preferred model (i.e., violent crime rate, rape rate, and color). Another noticeable difference is that with the inclusion of color (X_4), the effect of the rape rate (X_2) became significant. Since the regression coefficient for X_2 represents a deviation from the coefficient for for X_1, the effect of X_2 on the log odds on "Favor" is still positive although less than that for the violent crime rate in general.

Also, the regression lines for the South are no longer curvilinear. However, the nonlinear relation between the other three regions (i.e., Northeast, North Central, and West) and the violent crime rate persisted. This nonlinear relation could reflect two things. Gibbs (1972) implies that as a socially condemned act becomes more widespread, it becomes less "deviant." Normative expectations (i.e., perceptions of "actual" volume of criminality) are supposedly negatively related to

normative evaluations (i.e., how an act is defined by the public). Thus, relatively large annual increases in the violent crime rate since about 1963 may now have become standard; i.e., based on past annual increases in the violent crime rate, the public perceives the present increase as "normal," attenuating the public reaction toward crime and the increasing support for the death penalty. Second, Ellsworth and Ross (1975) found evidence that many death penalty opponents would probably continue to oppose it regardless of changes in the violent crime rate. For example, 32 percent of the death penalty opponents felt that it was always "immoral for society to deliberately take a life" (Ellsworth and Ross, 1975: 169).

There may be several different groups regarding death penalty attitudes: (1) those persons who always either (a) favor or (b) oppose capital punishment, and (2) those whose attitudes change over time. Moreover, individuals in the latter group can be subdivided into those who change their attitudes (a) in an absolute sense so they either favor or oppose the death penalty regardless of any contingencies (e.g., favor or oppose death for both adults and juveniles), and (b) only under certain contingencies (e.g., favor or oppose death for males but not females). When some historical event (e.g., a change in the violent crime rate) intensifies feelings toward either support for or opposition against capital punishment, many individuals in groups (2a) and (2b) may shift their attitudes accordingly. Thus, as public support for capital punishment reaches 65 percent, fewer and fewer persons may change their attitudes, since there is an unknown proportion of

individuals in group (1b) who will always oppose the death penalty. Support for the death penalty may still increase but at a decreasing rate since there is a "threshold" beyond which the log odds on "Favor" begin to attenuate. Since public support for capital punishment is lower in the South than in the other regions of the U. S. (Erskine, 1970; Rankin, 1977), the South may not yet have reached the point when the rate of increase starts to attenuate.

If the foregoing explanation is true, different models would be needed to explain the relations between the violent crime rate and the various groups of death penalty proponents and opponents. In the absence of any survey questions which might have distinguished among these various groups, however, the specification of more intricate models was not feasible in the present study.

Moreover, the foregoing argument reflects an asymptotic function rather than the polynomial function utilized in this analysis. Figure 3 indicates, however, that the relationship between death penalty attitudes and the violent crime rate is still monotonic within the range of data analyzed in this study.

Finally, further analysis reveals that many of the variables (presidential candidate voted for in 1972, fear of victimization, courts, policemen striking adult male citizens in general and murder suspects in particular, and gun ownership) associated with the "law and order" syndrome were also significantly related to the general violent crime rate (either bivariately or when controlling for region). However, variables 5, 7, and 13 of Appendix A (concern with spending on crime,

presidential candidate voted for in 1968, and wiretapping, respectively) showed no significant relation with the violent crime rate. Although this casts some doubt upon the proposed relations in Figure 1, this figure was meant to serve as a heuristic device rather than a causal diagram.

Summary and Conclusions

Contrary to previous research which has merely reported increasing support for capital punishment since 1966, the present investigation "explained" this rise with F.B.I. data on violent crime rates. A rather strong, positive, nonlinear relation between support for capital punishment and the violent crime rate was revealed. Dummy variables representing year effects did not, in fact, significantly improve upon the chosen logit regression model.

The increasing public support for the death penalty began sometime between 1966 and 1969, approximately three years after relatively large increases in the official violent crime rate (F.B.I., 1968-75). "Law and order" and "crime in the streets" were campaign issues in the 1968 elections, creating an atmosphere which sensitized the American public to the crime problem. Concern about crime intensified, resulting in a hardening of attitudes toward criminals and a greater demand for harsh penalties (whether for deterrent or retributive reasons).

McIntyre (1967) argues that attitudes toward crime reflect the news media's coverage of violent crimes. When persons in Washington, D. C., were asked where they obtained their information regarding their perceptions of crime in the city, a majority responded either the news

media or from what other people had said. Thus, attitudes toward crime in general and the death penalty in particular may not closely follow changes in the violent crime rate because the mass media can influence perceptions of crime by the amount and type of coverage it gives to crime-related topics.

Future research should distinguish between the various groups of proponents and opponents (e.g., those who always either favor or oppose capital punishment) so that more intricate models of the relations between death penalty attitudes and the violent crime rate can be specified. The dependent variable could also be varied so that different acts and contingencies can be taken into account. Concomitantly, the possible responses should be expanded so that various degrees of support and opposition are included.

Finally, the 1966-76 rise may be only a fluctuation interrupting a long-term downward trend (Kohlberg and Elfenbein, 1975). While the relatively high violent crime rate could provide the necessary justification for the death penalty now, as this rate stabilizes or decreases, so too will support for capital punishment. This research, in fact, suggests that the rate of increase in support is decreasing.

III

SCHOOLS AND DELINQUENCY

The family was the primary socializing group in the predominantly rural American society. It determined the child's socio-economic class and met much of the educational, religious, ethical, and occupational needs of the young. Thus, it was reasonable for early researchers to perceive the broken home as a form of social disorganization that contributes to juvenile delinquency. However, when research findings demonstrated that the relation between broken homes and delinquency is extremely problematical (Wilkinson, 1974), and researchers realized that many socializing functions which formerly took place primarily at home are now assumed by the school as well (Haskell and Yablonsky, 1974), they focused on the school as the etiological locus of delinquency.

Kvaraceus (1945), Cohen (1955), Stinchcombe (1964), and others argue that delinquency is often a result of rebellion against the school or an adaptation to frustrating school experiences. Kvaraceus (1945) and Cohen (1955) maintain that lower-class delinquency is a response to the unequal academic competition in school. While both lower-class and middle-class adolescents compete for status in terms of the same academic criteria, lower-class boys are at a particular disadvantage because their adverse home experiences make it difficult for them to "measure

up to" middle-class standards (Cohen, 1955). For example, lower-class families do not place great emphasis on the middle-class norms of "ambition," "responsibility," or "deferred gratification."

On the other hand, Stinchcombe (1964: 8) contends that "among those failing in school, those under the most pressure to succeed will be the most rebellious . . ." Pressure to succeed is supposedly greater among middle-class boys than among lower-class boys, since school failure may not only limit their upward social mobility but may also initiate downward mobility and loss of status. Indeed, Stinchcombe (1964) found the academically unsuccessful middle-class boys to be more rebellious than unsuccessful lower-class boys. Similarly, Hirschi (1969) found that middle-class and lower-middle-class boys doing poorly in school were more delinquent than their working-class counterparts. However, the difference was negligible, as it was in Stinchcombe's (1964) study. Moreover, Hirschi (1969) failed to explain why the average number of self-reported delinquent acts reported by upper-class boys doing poorly in school was identical to that reported by the academically unsuccessful lower-class boys. According to Stinchcombe's contention, upper-class boys should have committed the highest average number of delicts because they would be under the most pressure to succeed.

Polk (1972) failed to find a higher rate of delinquency among downwardly mobile white-collar boys in comparison to their blue-collar counterparts. Instead, regardless of social class, boys who were failing in high school were more likely to be delinquent than those doing

well academically. Moreover, the research by Kelly and Balch (1971) is just one of many studies that failed to find a relation between social class and delinquency.

While school failure may have negative consequences for the adolescent's economic future, Polk (1972) recognized that frustrations may also be a result of the more immediate degradation and stigma attached to the low achieving student. Similarly, Elliott and Voss (1974: 26) suggest that "immediate problems are more salient than long-range goals, and anticipated failure to achieve such goals may be an effect, rather than a cause of delinquency." Failing students lose esteem among both their classmates and teachers and tend to be excluded from participation in extracurricular activities (Gold, 1963; Vinter and Sarri, 1965; Schafer and Polk, 1967; Rhodes and Reiss, 1969; Polk and Richmond, 1972). Delinquency purportedly relieves the present frustrations produced by the unpleasant school experiences (e.g., the stigma and loss of status associated with those who receive poor grades). Indeed, the argument that juvenile delinquency reflects school-induced frustration and failure is consistent with the findings that juvenile offense rates (1) decrease significantly after age 17, as adolescents complete their education and enter the labor force (Elliott, 1966; Elliott and Voss, 1974); (2) temporarily decline during the weekends and summer months when school is not in session (Kvaraceus, 1945; Elliott, 1966); and (3) decrease for high school students subsequent to dropping out of school (Elliott, 1966; Elliott and Voss, 1974). Hirschi (1969) also argues that delinquency does not result from

previous frustrations and failures. Rather, students who do badly in school reduce their educational interests and are, to that exten., "free" to commit delinquent acts without "normal" concern for the consequences.

Despite the great theoretical interest placed on educational antecedents, Elliott and Voss (1974) argue that the overall level of "explanation" provided by school-related variables is not high. For example, the coefficient of multiple correlation between all of Hirschi's (1969) school variables and delinquency is .41. However, the correlations between school variables and delinquency are still greater than the associations between home factors and delinquency (Stinchcombe, 1964; Hirschi, 1969; Elliott and Voss, 1974).

These correlations may be rather small because the various school factors might not affect the delinquent behavior of all adolescent subgroups to the same extent. The relative "generative" effects (i.e., an inclination to violate norms) or "directional" effects (i.e., which specific norms are to be violated) of specific antecedent variables on delinquency may depend to some extent on the adolescent's sex and age. For example, the most widely shared interpretation of female delinquency holds that adolescent girls become delinquent because of broken homes or tension-ridden family situations (Gibbons, 1976). Since adolescent girls supposedly have closer emotional ties to their families than do boys (Douvan and Adelson, 1966), they may also be more sensitive to family conflict. Whereas previous research on the broken home and male delinquency has resulted in contradictory findings, a consistent

negative association has been reported between female delinquency (using official records) and the broken home (Monahan, 1957; Morris, 1964; Wilkinson, 1974).

Moreover, theorists who emphasize the negative consequences of poor grades and low educational expectations for the adolescent's economic and occupational future, would posit differential effects of these school variables on delinquent behavior by age and sex. For example, strain theorists expect academic performance and educational expectations to affect the economic future of males more than females. In other words, boys should encounter more "strain" than girls, since the perception that a good job will not be forthcoming as a result of poor grades and/or no college plans should have graver consequences for males (the traditional "bread-winners") than for females.

Strain theorists would also predict that the effect of school variables on delinquency is dependent on the age of the adolescents. Again, if poor grades and low educational expectations have negative occupational consequences for adolescents upon graduation from high school, the effect of these school variables on delinquent behavior should be greater for older than for younger adolescents. Greater "strain" should be evidenced as the student nears high school graduation and the realization that he or she may not be able to procure a good job.

On the other hand, those who argue that immediate problems are more salient than a commitment to long-range goals (e.g., Elliott and Voss, 1974) imply that academic achievement and educational expectations

have separate effects on delinquent behavior, regardless of age and sex. For example, poor grades should have a stigmatizing effect on females as well as on males, or on freshmen as well as on seniors. Similarly, although Hirschi's (1969) control perspective does not preclude the possibility of interactions, it does not explicitly anticipate them. Reduced "commitment" (i.e., lowered educational expectations and poor grades) or "attachment" (i.e., "How much do you like school?") "frees" an adolescent to commit delinquent acts, regardless of one's age or sex.

In the present investigation, the relationships between delinquency and each of a number of school variables (i.e., academic achievement, educational expectations, attitudes toward school, and involvement in various extracurricular activities) are specified by grade level and sex to test for interactions. The discovery of differential effects by sex and grade level of these school factors on delinquency would lend support to strain theory and the salience of commitment to long-range goals in delinquency causation. On the other hand, control theory and the importance of more immediate problems associated with, say, poor grades would receive support from an absence of those interactions predicted by advocates of strain theory.

School Variables and Delinquency

Although researchers have consistently detected significant relations between various educational variables and delinquency, no study has yet determined whether school factors differentially affect

delinquent behavior by sex or age. Previous studies sometimes control for age or sex, but such research does not specifically test for interactions.

School Achievement and Attitudes toward School

Hirschi (1969) and Hirschi and Hindelang (1977) argue that boys who get poor grades reduce their interest in school. They suggest that ability (IQ) affects delinquency through academic performance (grades) and attitudes. That is, low IQ → poor school performance → negative attitudes toward school → rejection of the school's authority → delinquency. On the other hand, Frease (1973b) argues that negative attitudes toward school probably develop prior to low achievement. The expectation of no college education supposedly leads to negative attitudes toward school → low academic performance → low self-perception as a student → high number of delinquent friends → high delinquency rates.

While Polk and Halferty (1966) maintain that a "lack of commitment" to school standards is a reaction against educational failure, Karacki and Toby (1962) reverse that argument: "lack of commitment" develops prior to low academic achievement. As noted earlier, however, poor grades and negative school attitudes are generally considered sources of motivation to delinquency. Delinquent behavior is supposedly a means of "adapting to" or relieving the school-induced frustrations (Kvaraceus, 1945; Cohen, 1955; Stinchcombe, 1964; Rhodes and Reiss, 1969).

Although no study traces any of these proposed causal sequences through time, available evidence does indicate that official delinquency is positively related to both a dislike for school and educational failure, as reflected in grades, achievement test scores, and school retardation (e.g., Abbott and Breckenridge, 1917; Gold, 1963; Rhodes and Reiss, 1969; Frease, 1973a, 1973b).

Gold (1970) found poor grades to be related to boys' but not to girls' self-reported delinquency. He reasoned (as would strain theorists) that low academic performance may have more dire consequences for boys than for girls: "Inasmuch as a boy's future in general is more closely identified with his future occupation, which in turn is dependent on his academic performance, especially in his junior high and high school years, poor school performance is more problematic for a boy" (Gold, 1970: 125). Because the only two offenses which girls committed as frequently as boys (i.e., hitting parents and running away from home) are indicative of poor family relations, Gold believed that the principal provocation of female delinquency is family conditions, not school experiences. However, using a stepwise regression procedure, Elliott and Voss (1974) found no substantial sex difference in the relation between school variables and frequency of delinquent behavior. They concluded that "[f]emales report lower rates of delinquent behavior than males, but it appears that the conditions reflected by this set of [school] variables are equally conducive to delinquency among males and females" (Elliott and Voss, 1974: 178).

Educational Expectations

Frease (1973a) argues that the curriculum and status reward systems of high schools are chiefly oriented toward producing students who will attend college. The teachers unwittingly instill their educational values in students by encouraging the development of college-oriented personalities and rewarding the proper "orderly" and "cooperative" behavior. As a result, school becomes meaningless for those students not going on to college (Frease, 1973a).

Similarly, Cohen (1955) argues that the school is a situation in which the noncollege-bound boy is at a particular disadvantage when competing with college-bound boys for academic status. The perception that a good job will not be forthcoming as a result of low educational expectations is one form of blocked goal attainment that can lead to delinquency.

On the other hand, Briar and Piliavin (1965) argue that decisions to commit delinquent acts are rationally determined, given the individual's potential costs and risks he runs of losing his previous "investment" in conventional behavior. Thus, the adolescent with "high stakes in conformity" (i.e., one who plans to attend college) is committed to meeting conventional expectations and is less likely to engage in criminal activity than is one for whom these stakes are low. Hirschi (1969) also contends that delinquent behavior jeopardizes one's chances of success. An individual who loses his incentives for conventional achievement (i.e., a college education) can commit delinquent acts

without the "normal" fear of educational reprisals, such as receiving failing grades or being sent home from school by the principal.

Despite these theoretical differences, Stinchcombe (1964), Hirschi (1969), Namenwirth (1969), Polk (1972), and Polk and Burkett (1972) all found higher rates of delinquency among noncollege-bound youth than among their college-oriented counterparts. However, none of these studies determined whether the relationship between educational expectations and delinquency is dependent on the adolescent's age or sex.

Involvement in Extracurricular Activities

Involvement in school-related activities and organizations is considered an important criterion of success in the informal system of the school (Elliott and Voss, 1974). Indeed, Gordon (1957) maintains that achievement in activities is the most important status determinant in school. Polk and Halferty (1966) have described involvement in extracurricular activities as a number of "side bets" that keep students interested in school and out of trouble by reinforcing the students' commitment to success within the school system. Whereas Schafer (1972) argues that school is less likley to be a source of frustration for the athlete than for the nonathlete, Hirschi (1969) claims that an adolescent involved in sports may not have time for law-breaking behavior.

Conger (1976: 20) maintains that "involvement in conventional activities is fairly unimportant unless it is concerned with commitment." For example, involvement in homework is negatively related to delinquency (Hindelang, 1973), but it is also an indicator of commitment to conventional goals. Thus, Conger (1976) argues that "involvement" is not a

crucial variable in control theory. Indeed, research by Hirschi (1969), Hindelang (1973), and Elliott and Voss (1974) all found no association between participation in various activities (e.g., clubs, sports) and measures of self-reported delinquency, although Schafer (1972) did find a small, negative relation between athletic participation and officially recorded delinquency. However, even a statistically significant negative relation does not necessarily indicate that "involvement" leads to reduced frequency of delinquent behavior, since the association could reflect selectivity. That is, nondelinquents may simply be more likely to participate in sports or clubs. Although selectivity may also account for the associations between delinquency and the other school variables under investigation, the relations between "involvement" and delinquency are particularly susceptible to selective influences. For example, even though participation in sports and other activities can provide an alternative source of status or recognition in school, Rhodes and Reiss (1969) maintain that these activities tend to be restricted to a talented few.

Research Rationale

Although many researchers have investigated the relations between various school factors and officially recorded delinquency, few have studied the effects of educational variables on measures of self-reported delinquency. The studies by Hirschi (1969) and Elliott and Voss (1974) suggest that at least one school variable (academic achievement) may be more highly associated with officially recorded than with self-reported delinquency.

Whereas previous research and theory were usually concerned only with explaining sex or age differences in the frequency of delinquent behavior (e.g., Morris, 1964; Harris, 1977), in the present study the relations between certain school variables and delinquency are specified by age (or grade level) and sex. That is, sex and grade level are treated as contingencies, not as theoretically interesting variables in and of themselves. In fact, even if grade level and sex interact with school factors and delinquency, they are relatively uninformative or "primitive" (Harris, 1977) variables. In other words, deviance theorizing should be directed toward better understanding the roles of sex and age in producing delinquent behavior.

Only Gold (1970) and Elliott and Voss (1974) have specified the relations between certain educational variables and self-reported delinquency by sex, and these researchers reached opposite conclusions. Whereas Gold (1970) found a negative relation between academic achievement and delinquency for males but not for females, Elliott and Voss (1974) concluded that school antecedents lead to both male and female delinquency. However, neither Gold (1970) nor Elliott and Voss (1974) formally tested for interactions. Both conducted separate analyses for male and female adolescents, which assumes a priori that the relation between school variables and delinquency is dependent on sex. Thus, even if "academic achievement" was found to be more highly associated with male than with female delinquency, it would not be known whether this sex difference was statistically significant.

Specifically, strain theorists would predict that school-related antecedents have a greater effect on the delinquent behavior of males

than females and of older than younger adolescents. On the other hand, control theorists do not anticipate such interactions. Educational factors should have separate or independent effects on delinquent behavior, regardless of age and sex. The present investigation will formally test for these 3-way interactions (i.e., age and sex by school factors by delinquency) by methods which will be explained later.

The Sample

The data for this study were gathered in 1974 by the Wayne County Juvenile Facility Network from public school districts in grades seven through eleven (ages 11 to 17) of the "out county" area of Wayne County, Michigan. This includes all but the Detroit, Highland Park, and Hamtramck school districts. A two-stage sampling design was utilized. The first stage consisted of a sample drawn with replacement from the 33 public school districts in this "out county" area. Each district was then weighted according to its total seventh through eleventh grade enrollment so that each child in the collective district had an equal chance of being drawn. In this manner, eight different school districts were drawn, and two districts were each repeated once. From this initial drawing, three districts could not participate (one declined and the other two were too involved in labor negotiations to participate) and were replaced in a subsequent drawing.

In the second sampling stage, names were selected at random from all seventh through eleventh grade girls and boys in proportion to the actual enrollment in each grade at each school in every selected district. A total of 385 interviews (199 males and 186 females),

constituting 79 percent of the original sample, were conducted. Of the 102 unsuccessful interviews, only four occurred because of refusals by the juvenile to be questioned. Change in residence and inability to contact parents accounted for the balance. However, there is no reason to suspect that nonresponse bias resulted from a "mobility" factor, such that those students moving into or out of the selected school districts were either more or less delinquent than those already residing in the areas (Rankin, 1976).

The geographic area under consideration includes not only densely populated, blue-collar, urban industrial communities, but also wholly residential communities, some of which were high income and white-collar and others which were moderate to low income. The western edge of the county includes some sparsely settled rural towns with occasional farms. The black population of the "out county" area is less than 5 percent, most of which is clustered in a few communities not included in the sample.

Operational Measures

The present research specifies the relations between certain school factors and delinquency by sex and grade level to test for the interactions predicted by strain theorists. Although the Wayne County survey contains a number of measures analogous to those used by previous researchers, some educational variables were not replicated.

Independent Variables

"Academic achievement" was ascertained through two questions: (a) "Have you ever been held back a grade in school?" ("yes" or "no"); (b) "What do you think your chances are of graduating from high school?" ("very bad," "bad," "fair," and "very good"). Ability to estimate "chances of graduating from high school" may reflect the student's educational aspirations rather than achievement. This may be especially true of the junior high respondents, since they may have little knowledge of how they will fare academically in high school. While some error is therefore involved in using an "estimation" item as a measure of achievement, there is probably a positive relation between educational aspirations and academic achievement. Although grade point average would also have been of interest, the requisite data were not available.

The measure of "attitudes toward school" was provided by the question, "In general, how much do you like school in terms of the following choices: not at all, not very much, somewhat, pretty well, a great deal." "Educational expectations" was ascertained through the question, "After high school do you expect to get any more education?" ("yes" or "no").

Several items served as separate measures of "involvement in extracurricular activities:" (a) "Have you ever worked on a school newspaper or for some other school club apart from sports? About how many times in the past year?" (b) "Have you ever been elected a class officer in school, or an officer in a club at school or outside school? About how many times in the past year?" (c) "Have you ever played on

a school athletic team? About how many teams in the past year?" Finally, the adolescents' "grade level" and "sex" were also obtained by the Wayne County interviewers.

Dependent Variable

Measures of delinquency are rarely identical from one study to the next, and it is therefore questionable whether the findings of those studies are truly comparable. Although Hirschi (1969: 55) unconvincingly argues that "the findings of delinquency research are not as dependent on the operational definition of delinquency as has widely been assumed," variation in the measurement of the dependent variable could result in differences in (1) the magnitudes of the correlations, (2) the statistical significance of the relations, and (3) the direction of the associations. Hirschi's (1969) delinquency index was thus replicated in the present study to minimize these three potential differences in research findings. Although replication and analysis of other researchers' delinquency indices (e.g., Gold, 1970; Elliott and Voss, 1974) would also be of interest, only Hirschi's (1969) index could be closely approximated with the Wayne County data.

Hirschi (1969) asked adolescent boys if they had committed each of six delinquent acts (fighting, vandalism, car theft, grand theft, and two types of petty theft) in the previous year. Each adolescent was scored "0" if he had not committed the offense and "1" if he had. The scores for these six acts were summed and then trichotomized into the categories "0, 1, and 2+" offenses. The measure of delinquency used in the present study is based on the following six items: "How many

times do you think you have done this in the past year? (1) Taken something worth less than $5.00; (2) taken something worth between $5.00 and $50.00; (3) taken something worth more than $50.00 (except car); (4) taken a car without the owner's permission; (5) damaged property on purpose that wasn't yours or your family's; (6) gotten into a fist fight with someone else either by yourself or as part of a group." A delinquency index identical to that of Hirschi (1969) was then created from these six items.

Methods

Various 4-way contingency tables (delinquency by grade level by sex by each of the school variables) were analyzed by the procedure described by Duncan (1975). As in Goodman's (1970) technique, this procedure involves the examination of a set of hierarchical models, each of which is described by a particular combination of main and interaction effects of the independent variables with the dependent variable. Each model is characterized by its "goodness of fit" to the observed data, as evaluated by the model's likelihood ratio chi-square statistic (χ^2) and degrees of freedom. Hierarchical models are compared by subtracting chi-square values and degrees of freedom to yield new chi-square statistics which are then examined for improvement of fit. A preferred model is selected on the basis of "goodness of fit" and "parsimony" and cannot be significantly improved upon by the inclusion of additional effects.

Interpretation of the preferred model is clarified by computing odds and odds ratios (from the expected frequencies) which describe the magnitude of each effect. "Odds" are computed in a fashion familiar

to those acquainted with betting. For example, the (observed) odds on "2+" delinquent acts, relative to (i.e., divided by) "0" delinquent acts are .37 because 36 adolescent girls were scored "2+" and 97 were scored "0." Since the corresponding odds on "2+" delinquent acts are 1.20 for adolescent boys, the odds ratio "male:female" is 1.20 divided by .37, or 3.24. This ratio (3.24) is greater than 1.0, indicating that the odds on committing "2+" delinquent acts are greater for males than for females.

Unlike Goodman's (1970) technique, however, the procedure described by Duncan (1975) can reveal how the several categories of an uncollapsed polytomous variable interact with the other variables, since these categories often do not behave similarly. Thus, models can be specified in terms of the particular categories of the polytomy that enter into relations with the other variables under investigation. Determining how a polytomous variable relates to the other variables, in turn, is logically prior to the decision on how to combine categories of this variable (if such a step can be justified at all). Combining categories of polytomous variables mitigates the problem of average small cell frequencies in multi-way contingency table analysis.

Findings

Each of the two measures of academic achievement (i.e., flunking and chances of graduating from high school) was cross-classified by grade level, sex, and delinquency in a 4-way contingency table. Although previous research has revealed a positive relation between school retardation and official measures of delinquency, no association was

detected between "flunking" and the index of self-reported delinquency in the present study. Using the procedure described by Duncan (1975), models were specified which allowed different contrasts between response categories of "chances of graduating from high school" and the other variables. The dichotomy "very bad/bad/fair v. very good" captured all of the significant contrasts and was therefore used in the following analysis of the 4-way table.

Models were next specified which allowed different contrasts between grade levels and the other variables. The preferred model (X^2 = 22.2, d.f. = 20, p > .3) contains a separate effect of "chances of graduating" with delinquency: {SCJNTE}, {DST}, {DJ}, {DC}, where D = delinquency, S = sex, C = chances of graduating from high school, J = junior high (grades seven and eight), N = ninth grade, T = tenth grade, and E = eleventh grade. Regardless of sex or grade level, the odds ratios "very bad/bad/fair:very good" are 2.3, computed on the odds 1:0 and 2+:0 of delinquency. Thus, adolescents who responded "very bad," "bad," or "fair" were more likely to be delinquent than those who responded "very good" to the question on "chances of graduating," regardless of sex or grade level. This suggests that immediate problems rather than commitment to long-range goals are more salient in determining the frequency of delinquent behavior among adolescents. Although the relation between sex and delinquency does depend on whether or not the adolescent is in the tenth grade, this 3-way interaction does not include the measure of academic achievement. Since similar 3-way

interactions were discovered in the other tables under investigation, the odds ratios for grade level and sex will be discussed later.

As in previous research involving the self-reported measures of delinquency, no significant relation was found between delinquent behavior and involvement either in sports or in clubs. However, a significant relation was detected between involvement, as measured by "officer in clubs," and delinquency. It is interesting to note that when models were specified which allowed different contrasts between the response categories (i.e., 0, 1, 2+) of "officer in clubs" and the other variables, the dichotomy "0/1 v. 2+" captured all of the significant contrasts. Previous researchers have usually dichotomized such variables as "0 v. 1+," but such a dichotomy would have masked any significant relation in the present study. Models were next specified which allowed different contrasts between the grade levels and the other variables. The fitted odds and odds ratios for the preferred model are presented in Table 1.

As indicated by the odds ratios in Table 1, the relation between "officer in clubs" and delinquency depends on whether or not the adolescent is in junior high or high school. The ratios 0,1:2+ for high school students (i.e., grades nine through eleven) are 2.91 and 5.79, computed on the odds 1:0 and 2+:0 of delinquency, respectively. However, the corresponding ratios for junior high adolescents are both less than 1.0 (.73 and .07), or in the opposite direction from that expected. Thus, junior high students who were officers in two or more clubs were actually more likely to be delinquent than those who were officers in

Table 1. Odds on Committing Delinquent Acts (D), by Sex, Grade Level, and Involvement (as Measured by Officer in Clubs): Wayne County, Michigan, 1974

Grade	Officer(O)*	Sex(S)	n	Odds**		Ratios			
						0,1:2+(O)		Male:Female	
				1:0	2+:0	1:0	2+:0	1:0	2+:0
Jr. High(J)	0,1	Female	62	.55	.26	.73	.07	2.38	2.80
		Male	81	1.31	.72				
	2+	Female	4	.75	3.50				
		Male	3	1.79	9.75				
9th(N)	0,1	Female	42	.49	.64	2.91	5.79	2.38	2.80
		Male	32	1.17	1.79				
	2+	Female	2	.17	.11				
		Male	1	.40	.31				
10th(T)	0,1	Female	34	.67	.05	2.91	5.79	1.34	28.50
		Male	40	.90	1.50				
	2+	Female	4	.23	.01				
		Male	2	.31	.27				
11th(E)	0,1	Female	36	.49	.64	2.91	5.79	2.38	2.80
		Male	39	1.17	1.79				
	2+	Female	1	.17	.11				
		Male	1	.40	.31				

*Using the partitioning procedure described by Duncan (1975), it was found that the responses "0" and "1" could be combined without losing any significant effect.

**Computed from fitted frequencies under model: {OSJNTE}, {DST}, {DOJ} (X^2 = 16.81, d.f. = 18, p > .5).

one or no clubs. Although the relation between "officer in clubs" and delinquency is not greater for older than for younger adolescents (as would be predicted by strain theorists), the association is in the expected direction only for the older (high school) adolescents. This association is expressed more clearly in Figure 1, which graphically illustrates the fitted odds of the preferred model. The relative magnitude of the association between "officer in clubs" and delinquency is indicated by the slopes representing the fitted odds; a steeper slope indicates a greater effect.

The effect of sex on delinquency is indicated by the odds ratios "male:female" in Table 1 and by the vertical distance between lines of the same grade level in Figure 1. The relation between sex and delinquency depends on whether or not the adolescent is in the tenth grade. Although males are more likely to commit delinquent acts than females at each grade level, tenth grade boys are much more likely to commit two or more delicts (relative to no delicts) than are tenth grade girls. Whereas the odds ratio "male:female" is 28.50 (computed on the odds 2+:0 of delinquency) for tenth graders, the corresponding ratios are 2.80 at all other grade levels.

Finally, the association between grade level and delinquency can be most clearly elucidated in Figure 1 (although the reader can compute the ratios for grade levels from the fitted odds in Table 1). Grades nine and eleven did not differ significantly from each other in regard to their association with delinquency and are therefore represented as a single line. Whereas the association between the tenth

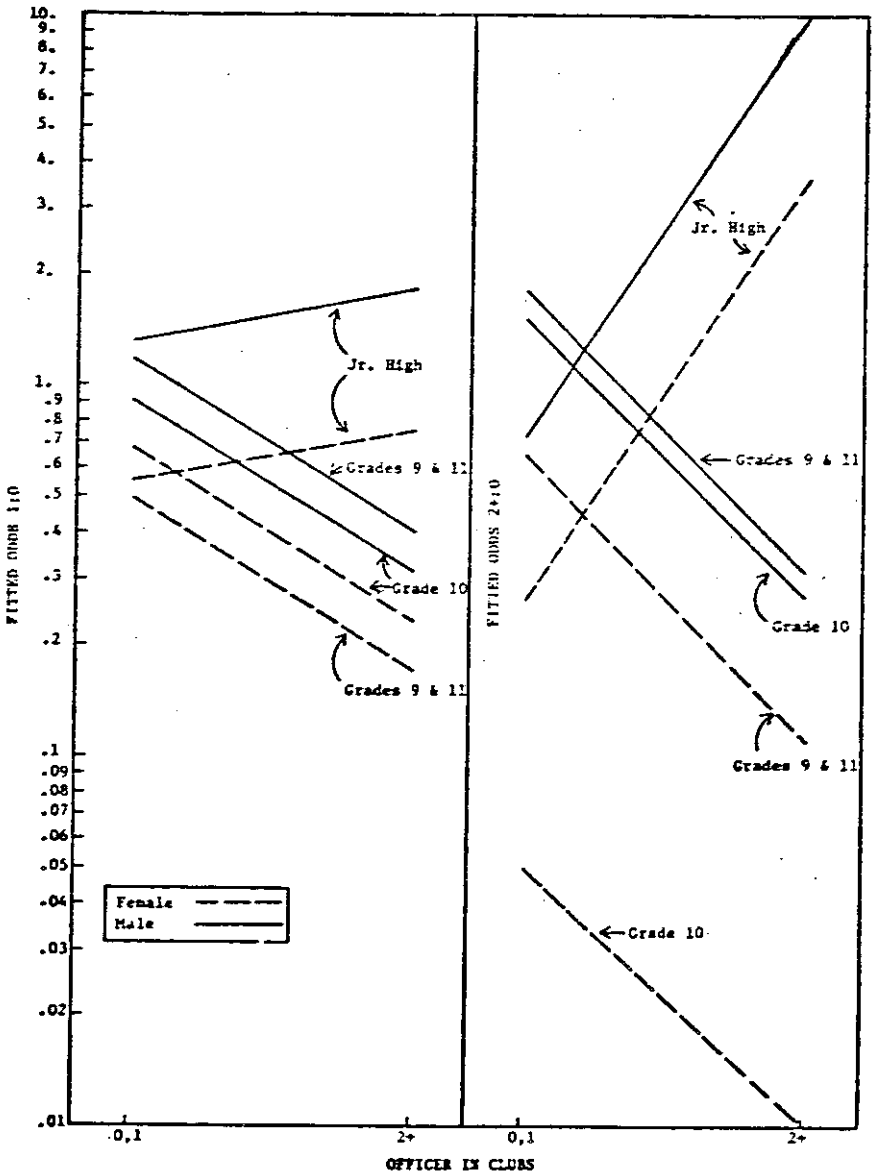

Figure 1. Odds on Committing Delinquent Acts, by Sex, Grade Level, and Involvement (as Measured by Officer in Clubs)

grade and delinquency depends on sex, the relation between grades seven and eight (junior high) and delinquency is dependent on whether or not the adolescents are highly involved as officers in clubs. However, these associations will not be further discussed, since 3-way interactions not involving one of the school variables is only tangential to the focus of this paper.

A significant 3-way interaction between delinquency, grade level, and expected education was detected in the 4-way table, delinquency by sex, grade level, and expected education. The fitted odds and odds ratios for the preferred model are presented in Table 2. As indicated by the ratios "no:yes," the relation between expected education and delinquency is dependent on whether or not the adolescent is in junior high or high school. As would be predicted by strain theorists, the effect of "expected education" on delinquency is greater for the older than for the younger adolescents. The ratios "no:yes" (computed from the odds 2+:0) are 2.37 and 1.72 for high school and junior high students, respectively. Moreover, the ratio "no:yes" (computed from the odds 1:0) is 3.11 for adolescents in grades nine through eleven but is .67 (and in the direction opposite from that expected) for seventh and eighth graders. However, when tested separately, this latter ratio (.67) was not statistically significant (or significantly different from 1.0). The association between educational expectations and delinquency is not dependent on sex, although a significant sex/grade level/delinquency interaction was again detected.

Table 2. Odds on Committing Delinquent Acts (D), by Sex, Grade Level, and Expected Education: Wayne County, Michigan, 1974

Grade	Expected Education(X)	Sex(S)	n	Odds* 1:0	Odds* 2+:0	Ratios No:Yes 1:0	Ratios No:Yes 2+:0
Jr. High(J)	No	Female	18	.40	.45	.67	1.72
		Male	20	.98	1.22		
	Yes	Female	48	.59	.26		
		Male	64	1.47	.71		
9th(N)	No	Female	11	1.09	1.19	3.11	2.37
		Male	5	2.69	3.25		
	Yes	Female	33	.35	.50		
		Male	25	.87	1.36		
10th(T)	No	Female	13	1.25	.08	3.11	2.37
		Male	12	1.96	2.70		
	Yes	Female	25	.40	.03		
		Male	30	.63	1.13		
11th(E)	No	Female	12	1.10	1.19	3.11	2.37
		Male	11	2.70	3.26		
	Yes	Female	25	.35	.50		
		Male	28	.87	1.36		

*Computed from fitted frequencies under model: {XSJNTE}, {DST}, {DXJ} (X^2 = 14.99, d.f. = 18, p > .5).

The odds and odds ratios for the preferred model from the 4-way contingency table, delinquency by grade level, sex and attitudes toward school are presented in Table 3 and graphically illustrated in Figure 2. Using the partitioning procedure described by Duncan (1975), it was found that the response categories "not at all" and "not very much" as well as "pretty well" and "a great deal" could be combined without losing any significant effect. Models were then specified which allowed different contrasts between grade levels and the other variables. As indicated in Table 3, a significant 3-way interaction was detected; the association between attitudes toward school and delinquency depends on sex.

Unexpectedly, however, the effect of attitudes toward school on delinquency is actually greater for females than for males! Whereas the odds ratios (computed on the odds 2+:0) "not at all/not very much:pretty well/a great deal" [or (1):(3) in Table 3] and "fair:pretty well/a great deal" [or (2):(3)] for female adolescents are 12.14 and 3.43, respectively, the corresponding ratios are 5.69 and 2.15 for males. Moreover, the ratios (computed on the odds 1:0) (1):(3) and (2):(3) for females are 10.77 and 1.81, respectively, while the corresponding ratios for males are .69 and .35.

Although the odds 1:0 are greater for males who responded "not at all" or "not very much" than for those who answered "fair" (see Figure 2), these odds (1:0) unexpectedly increase for those boys who responded either "pretty well" or "a great deal." Thus, school attitudes may have little effect on whether males are scored 0 or 1 on the delinquency measure. Indeed, although the relation between attitudes toward

Table 3. Odds on Committing Delinquent Acts (D), by Sex, Grade Level, and Attitudes toward School: Wayne County, Michigan, 1974

Grade	Attitudes Toward School*	Sex(S)	n	Odds**		Ratios (1):(3)		Ratios (2):(3)	
				1:0	2+:0	1:0	2+:0	1:0	2+:0
Jr. High(J)	(1)Not at all/ Not very much	Female	1	5.36	2.73	10.77	12.14	1.81	3.43
		Male	8	1.21	3.27	.69	5.69	.35	2.15
	(2)Somewhat	Female	8	.87	.75				
		Male	20	.61	1.24				
	(3)Pretty well/ A great deal	Female	57	.48	.22				
		Male	56	1.75	.57				
9th(N)	(1)	Female	8	3.62	4.69	10.77	12.14	1.81	3.43
		Male	2	.85	5.85	.69	5.69	.35	2.15
	(2)	Female	6	.62	1.34				
		Male	7	.43	2.21				
	(3)	Female	30	.34	.39				
		Male	24	1.24	1.03				
10th(T)	(1)	Female	3	4.82	.31	10.77	12.14	1.81	3.43
		Male	5	.75	4.83	.69	5.69	.35	2.15
	(2)	Female	8	.81	.09				
		Male	13	.38	1.83				
	(3)	Female	27	.45	.03				
		Male	24	1.08	.85				
11th(E)	(1)	Female	5	3.62	4.69	10.77	12.14	1.81	3.43
		Male	4	.85	5.85	.69	5.69	.35	2.15
	(2)	Female	8	.62	1.34				
		Male	11	.43	2.21				
	(3)	Female	24	.34	.39				
		Male	25	1.24	1.03				

Table 3, Continued

*Using the partitioning procedure described by Duncan (1975), it was found that the response categories "Not at all" and "Not very much" as well as "Pretty well" and "A great deal" could be combined without losing any significant effect.

**Computed from fitted frequencies under model: {ASJNTE}, {DSA}, {DST}, {DJ} (X^2 = 27.36, d.f. = 30, p > .5).

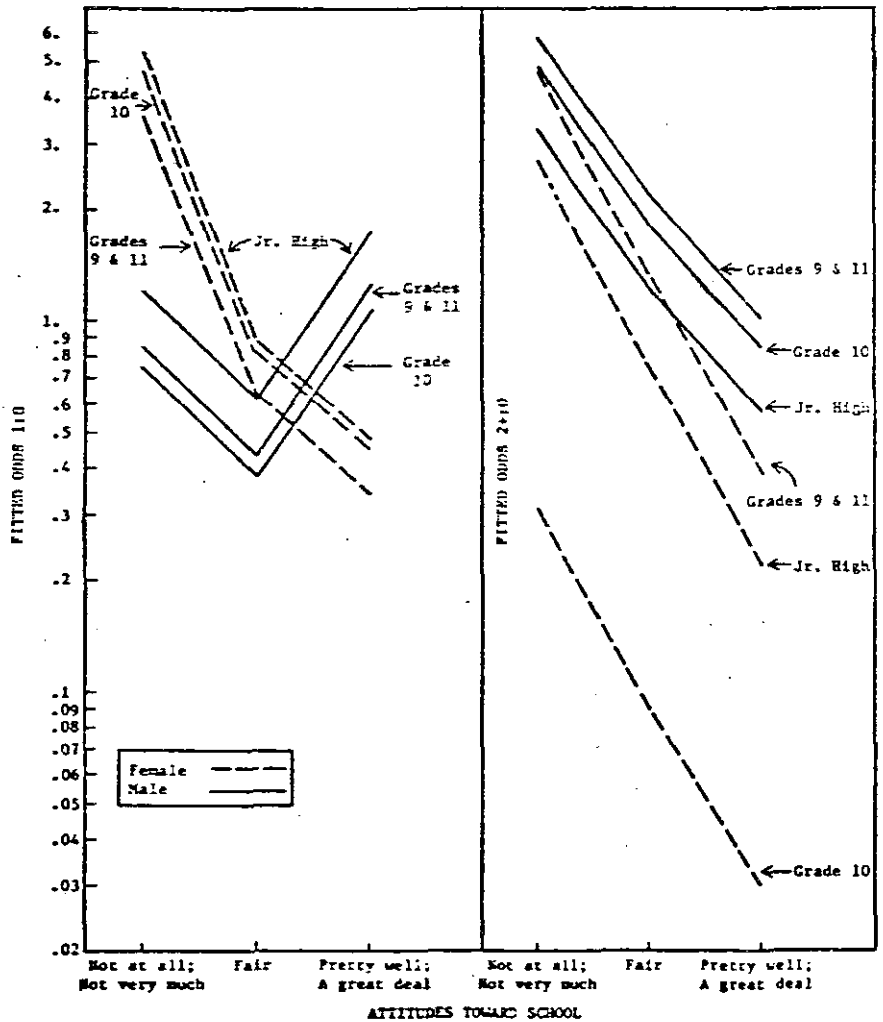

Figure 2. Odds on Committing Delinquent Acts, by Sex, Grade Level, and Attitudes toward School

school and the odds (1:0) on delinquency for adolescent boys appears to be nonmonotonic, when tested separately it was not statistically significant. However, the odds 2+:0 are consistently in the expected direction within response categories of attitudes toward school.

Summary and Conclusions

Strain theorists who emphasize the negative consequences of poor grades and low educational expectations for the adolescent's economic future would expect educational antecedents to have a greater effect on the delinquent behavior of boys than girls and of older than younger adolescents. On the other hand, those theorists who argue that immediate problems (e.g., the stigma attached to those students who receive poor grades) are more salient than a commitment to long-range goals would expect school variables to have separate effects on delinquent behavior. These arguments are akin to what Briar and Piliavin (1965) refer to as "stakes in conformity." In terms of a commitment to future economic goals, higher "stakes" are supposedly associated with males than females and with older than younger adolescents. However, in regard to the immediate problems that confront poor students or noncollege-bound adolescents, these "stakes" are low, regardless of sex or age.

The present study formally tested for grade level/school factor/delinquency and sex/school factor/delinquency interactions to determine whether the association between certain school variables and delinquency is dependent on grade level and sex. Although no significant association was detected between school retardation and delinquency, "chances of graduating from high school" was separately related to delinquent

behavior. Those students who responded "very bad," "bad," or "fair" were more likely to be delinquent than those who responded "very good," regardless of grade level and sex.

Although involvement in sports and clubs at school was not significantly related to delinquency, the association between "officer in clubs" and delinquent behavior was dependent on grade level. Even though the effect of "officer in clubs" on delinquency was not greater for older than for younger adolescents, this association was in the expected direction only for the older students (see Figure 1). This indicates that this measure of involvement has an inhibiting effect on delinquent behavior for the high school but not for the junior high students. As suggested earlier, an association between involvement and delinquency may merely reflect selectivity. However, if nondelinquents are simply more likely to be officers, it is difficult to understand why this selective influence operates in high school but not in junior high.

Why is only one of the three measures of "involvement" significantly related to delinquency? Gordon's (1957: 1) main contention is that "the dominant motivation of the high school student is to achieve and maintain a general social status within the organization of the school." Participation in formal student organizations (e.g., clubs, sports) are the means by which students can achieve their status. However, participation in certain activities can provide more or less status than participation in other activities. "Scarcity of positions," "intensity of competition" necessary to achieve the positions, and "high

visibility" are three criteria which provide relatively high prestige value for the participants. Certainly, club officers are scarce positions in comparison to club membership and the number of athletic participants. Moreover, intense competition in school elections for prominent club offices as well as the duties which accompany these offices can provide a margin of high visibility not always associated with athletic participation or club membership. Also, the elections for club officers can provide as much competition as earning a position on an athletic team and relatively more competition than voluntary club membership.

Gordon (1957) further maintains that the student's behavior reflects his general status in the school's social system. School expectations for conforming behavior are positively related to the student's social status, since behavioral conformity is necessary to maintain one's general status and office. Thus, club officers (who have relatively high status) may curtail their delinquent behavior even though club members and athletes may not.

Furthermore, the low frequency of delinquent behavior for club officers in grades nine to eleven but not in grades seven and eight of this study probably reflects the differences in social structure between junior high and high school. Athletics, clubs, and other activities are not as dominant in junior high as in high school. Therefore, the social structure is less defined in junior high because there are usually fewer activities in which to participate. Since junior high students thus

have fewer means through which status can be attained, school expectations for behavioral conformity may not be as great.

The effect of educational expectations on delinquency is also dependent on grade level. As would be predicted by strain theorists, the association between expected education and delinquent behavior was greater for older (high school) than for younger (junior high) adolescents.

Finally, a significant 3-way interaction was detected among sex, attitudes toward school, and delinquency. However, contrary to strain theory and previous research (Gold, 1970) which suggest that school factors affect boys' but not girls' delinquent behavior, the association between attitudes toward school and delinquency was found to be greater for girls than for boys!

The results of this study thus provide mixed support for both control and strain theory. Although "chances of graduating from high school" had a separate effect on delinquency, the associations between delinquent behavior and both "officer in clubs" and "educational expectations" were generally greater for older than for younger adolescents. Moreover, neither strain nor control theorists would have predicted that the effect of "attitudes toward school" on delinquency is greater for female than for male adolescents.

Finally, the explanation of age and sex differences in the <u>frequency</u> of delinquent behavior should not be the only concern of future research. Indeed, the present study reveals a need for <u>specification</u> of

relationships by age and sex. Thus, subsequent research should be more concerned with examining the differential impact of antecedent conditions on the delinquency of adolescent subgroups.

APPENDIX A

QUESTION WORDING, RESPONSE CATEGORIES, AND YEAR OF SURVEY FOR EACH OF THE VARIABLES UTILIZED IN ANALYSIS

Y (Capital punishment) Do you favor or oppose the death penalty for persons convicted of murder? (Favor, Oppose, Don't Know) 1972-76.

V_1 (Robbery) During the last year, did anyone take something directly from you by force — such as a stick-up, mugging, or threat? (Yes, No) 1973-74, 1976.

V_2 (Assault) Have you ever been punched or beaten by another person? (Yes, No) 1973, 1975-76.

V_3 (Threat) Have you ever been threatened with a gun, or shot at? (Yes, No) 1973, 1975-76.

V_4 (Burglary) During the last year — that is, between March and now — did anyone break into or somehow illegally get into your (apt./home)? (Yes, No) 1973-74, 1976.

V_5 (Concern with spending on crime) We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount . . . Halting the rising crime rate. 1973-76.

V_6 (Concern with spending on the space program) . . . Space exploration program. 1973-76.

V_7 (Pres. 68) Now in 1968, you remember that Humphrey ran for President on the Democratic ticket against Nixon for the Republicans, and Wallace as an Independent. If voted: Did you vote for Humphrey, Nixon, or Wallace? 1972-73.

V_8 (Pres. 72) In 1972, you remember that McGovern ran for President on the Democratic ticket, against Nixon for the Republicans. If voted: Did you vote for McGovern or Nixon? 1973-76.

V_9 (Fear) Is there any area around here — that is, within a mile — where you would be afraid to walk alone at night? (Yes, No) 1973-74, 1976.

V_{10} (Courts) In general, do you think the courts in this area deal too harshly or not harshly enough with criminals? (Too Harshly, Not harshly enough, About right) 1972-76.

V_{11} (Hit) Are there any situations you can imagine in which you would approve of a policeman striking an adult male citizen? (Yes, No) 1973, 1975-76.

V_{12} (Hitmurder) If yes or not sure: Would you approve if the citizen was being questioned as a suspect in a murder case? (Yes, No) 1973, 1975-76.

V_{13} (Wiretapping) Everything considered, would you say that, in general, you approve or disapprove of wiretapping? 1974-75.

V_{14} (Gun ownership) Do you happen to have in your home any guns or revolvers? (Yes, No) 1973-74, 1976.

REFERENCES

I

Akers, Ronald L.
1973 Deviant Behavior, A Social Learning Approach. Belmont, California: Wadsworth Publishing Company, Inc.

Barrett, Curtis L., and Helen Noble
1973 "Mothers' anxieties versus the effects of long distance move on children." Journal of Marriage and the Family 35 (May):181-188.

Bordua, David
1962 "Some comments on theories of group delinquency." Sociological Inquiry 32 (Spring, 2):245-260.

Briar, Scott and Irving Piliavin
1965 "Delinquency, situational inducements, and commitment to conformity." Social Problems 13 (Summer):35-45.

Dinitz, Simon, Walter C. Reckless and Barbara Kay
1958 "A self-gradient among potential delinquents." Journal of Criminal Law, Criminology and Police Science 49(September-October, 3):230-233.

Dinitz, Simon, Frank R. Scarpitti and Walter C. Reckless
1962 "Delinquency vulnerability: a cross group and longitudinal analysis." American Sociological Review 27(August, 4): 515-517.

Duncan, Otis Dudley
1975 "Partitioning polytomous variables in multiway contingency analysis." Social Science Research 4(September, 3): 167-182.

Erickson, Maynard L. and LaMar T. Empey
1963 "Court records, undetected delinquency and decision-making." Journal of Criminal Law, Criminology and Police Science 54 (December, 4):456-469.

Evans, John W., Jr.
1966 "The effect of pupil mobility upon academic achievement." National Elementary Principal 45(April):18-22.

Goodman, Leo A.
1970 "The multivariate analysis of qualitative data: interactions among multiple classifications." Journal of the American Statistical Association 65(March):226-256.

Hindelang, Michael J.
1973 "Causes of delinquency: a partial replication and extension." Social Problems 20(Spring, 4):471-487.

Hirschi, Travis
1969 Causes of Delinquency. Berkeley: University of California Press.

Jensen, Gary F.
1970 "Containment and delinquency: analysis of a theory." University of Washington Journal of Sociology 2 (November): 1-14.

Liska, Allen
1974 "Comments on Jensen's 'Parents, peers, and delinquent actions'." American Journal of Sociology 79(January, 4): 999-1002.

Piliavin, Irving M., Arlene C. Vadam and Jane A. Hardyck
1969 "Delinquency, personal costs and parental treatment: a test of a reward-cost model of juvenile criminality." Journal of Criminal Law, Criminology and Police Science 60(June, 2):165-172.

Polk, Kenneth and David S. Halferty
1966 "Adolescence, commitment, and delinquency." Journal of Research in Crime and Delinquency 3(July, 2):82-96.

Quinney, Richard
1970 The Social Reality of Crime. *Boston*: Little, Brown and Co.

Reckless, Walter C.
1967 The Crime Problem. New York: Appleton-Century-Crofts.

Reckless, Walter C., Simon Dinitz and Barbara Kay
1957 "The self component in potential delinquency and nondelinquency." American Sociological Review 22(October, 5): 566-570.

Reckless, Walter C., Simon Dinitz and Ellen Murray
1956 "Self concept as an insulator against delinquency." American Sociological Review 21(December, 6):744-746.

Scarpitti, Frank R., Ellen Murray, Simon Dinitz and Walter C. Reckless
1960 "The good boy in a high delinquency area: four years later." American Sociological Review 25(August, 4):555-558.

Schafer, Walter E.
1969 "Participation in interscholastic athletics and delinquency: a preliminary study." Social Problems 17(Summer, 1):40-47.

Schrag, Clarence
1971 Crime and Justice: American Style. Washington, D. C.: U.S. Government Printing Office.

Sykes, Gresham M. and David Matza
1957 "Techniques of neutralization: a theory of delinquency." American Sociological Review 22(December, 6):664-670.

Tangri, Sandra S. and Michael Schwartz
1967 "Delinquency research and the self-concept variable." Journal of Criminal Law, Criminology and Police Science 58(2):182-190.

Theil, Henri
1970 "On estimation of relationships involving qualitative variables." American Journal of Sociology 76(July, 1): 103-154.

Wayne County Juvenile Facility Network
1975 "Survey on the incidence of juvenile delinquency — initial report." Detroit (unpublished paper).

II

Bedau, Hugo A. (ed.)
1964 The Death Penalty in America. Garden City, New York: Doubleday and Co., Inc.

Biderman, A., Louise A. Johnson, Jennie McIntyre, and Adrianne W. Weir
1967 Report on a Pilot Study in the District of Columbia on Victimization and Attitudes Toward Law Enforcement. U.S. President's Commission on Law Enforcement and Administration of Justice, Field Survey I. Washington, D. C.: U.S. Government Printing Office.

Boehm, Virginia R.
1968 "Mr. Prejudice, Miss Sympathy and the authoritarian personality: an application of psychological measuring techniques to the problem of jury bias." Wisconsin Law Review 3:734-750.

Bogart, Leo
1972 Silent Politics: Polls and the Awareness of Public Opinion. New York: Wiley-Interscience.

Comrey, Andrew L. and John A. Newmeyer
1965 "Measurement of radicalism-conservatism." Journal of Social Psychology 67(December):357-369.

Conklin, John E.
1971 "Dimensions of community response to the crime problem." Social Problems 18(Winter, 3):373-385.

Crosson, R. F.
1966 An Investigation into Certain Personality Variables among Capital Trial Jurors. Case Western Reserve University (unpublished Ph.D. dissertation).

Duncan, Otis Dudley
1975 "Partitioning polytomous variables in multiway contingency analysis." Social Science Research 4(September, 3): 167-182.

Ellsworth, Phoebe C. and Lee Ross
1975 "Public opinion and judicial decision-making: an example from research on capital punishment." Pp. 152-171 in Hugo A. Bedau and Chester M. Pierce (eds.), Capital Punishment in the United States. New York: AMS Press, Inc.

Ennis, Philip
1967 Criminal Victimization in the U.S.: A Report of a National Survey. U.S. President's Commission on Law Enforcement and Administration of Justice, Field Survey II. Washington, D. C.: U.S. Government Printing Office.

Erskine, Hazel
1970 "The polls: capital punishment." Public Opinion Quarterly 34(Summer):290-307.

Executive Office of the President
1973 Social Indicators, 1973: Selected Statistics on Social Conditions and Trends in the U.S. Washington, D. C.: U.S. Government Printing Office.

Fattah, Ezzat A.
1976 "Perceptions of violence, concern about crime, fear of victimization and attitudes to the death penalty." Presented at the annual meeting of the American Society of Criminology, Tucson, Arizona.

Federal Bureau of Investigation
1968-1976 "Crime in the U.S." Uniform Crime Reports. Washington, D. C.: U.S. Government Printing Office.

Gelles, Richard J. and Murray A. Straus
1975 "Family experience and public support of the death penalty." American Journal of Orthopsychiatry 45(July, 4): 596-613.

Gibbs, Jack P.
1972 "Issues in defining deviant behavior." Pp. 39-68 in Robert Scott and Jack D. Douglas (eds.), Theoretical Perspectives on Deviance. New York: Basic Books, Inc.

Goodman, Leo A.
1970 "The multivariate analysis of qualitative data: interactions among multiple classifications." Journal of the American Statistical Association 65(March):226-256.

Harris, Richard
1969 The Fear of Crime. New York: Praeger Publishers.

Hindelang, Michael J., Christopher S. Dunn, L. Paul Sutton, and Alison Aumick
1973 Sourcebook of Criminal Justice Statistics, 1973. National Criminal Justice Information and Statistics Service, Law Enforcement Assistance Administration. Washington, D. C.: U.S. Government Printing Office.

Jurow, George L.
1971 "New data on the effect of a 'death qualified' jury on the guilt determination process." Harvard Law Review 84: 567-611.

Kohlberg, Lawrence and Donald Elfenbein
1975 "The development of moral judgments concerning capital punishment." American Journal of Orthopsychiatry 45 (July, 4):614-640.

McIntyre, Jennie
1967 "Public attitudes toward crime and law enforcement." Annals of the American Academy of Political and Social Science 374(November):34-46.

National Opinion Research Center
1972-1976 Codebook for the General Social Survey. Chicago: University of Chicago.

Rankin, Joseph H.
1977 "Public opinion and capital punishment: 1972 to 1974." Presented at the annual meeting of the Pacific Sociological Association, Sacramento, California.

Rokeach, Milton and D. Daniel McLellan
1970 "Dogmatism and the death penalty: a reinterpretation of the Duquesne poll data." Duquesne Law Review 8:125-129.

Rokeach, Milton and Neil Vidmar
1973 "Testimony concerning possible jury bias in a Black Panther murder trial." Journal of Applied Psychology 3(March): 19-29.

Roll, Charles W., Jr., and Albert H. Cantril
1972 Polls: Their Use and Misuse in Politics. New York: Basic Books, Inc.

Sarat, Austin and Neil Vidmar
1975 "Public opinion, the death penalty, and the Eighth Amendment: testing the Marshall hypothesis." Pp. 190-223 in Hugo A. Bedau and Chester M. Pierce (eds.), Capital Punishment in the United States. New York: AMS Press, Inc.

Skinner, Samuel K.
1976 "Foreword." Journal of Criminal Law and Criminology 67 (December, 4):437.

Smith, Tom W.
1975 "A trend analysis of attitudes toward capital punishment, 1936-1974." Pp. 255-318 in James A. Davis (Principal Investigator), Studies of Social Change Since 1948. Volume II, NORC Report 127B. Chicago: University of Chicago, National Opinion Research Center.

Snortum, John R. and Victor H. Ashear
1972 "Prejudice, punitiveness, and personality." Journal of Personality Assessment 36(June, 3):291-296.

Theil, Henri
1970 "On estimation of relationships involving qualitative variables." American Journal of Sociology 76(July, 1): 103-154.

Thomas, Charles W. and Samuel C. Foster
1975 "A sociological perspective on public support for capital punishment." American Journal of Orthopsychiatry 45 (July, 4):641-657.

Vidmar, Neil
1974 "Retributive and utilitarian motives and other correlates of Canadian attitudes toward the death penalty." The Canadian Psychologist 15(October, 4):337-356.

Vidmar, Neil and Phoebe Ellsworth
1974 "Public opinion and the death penalty." Stanford Law Review 26(June):1245-1270.

Wilson, James Q.
1968 "The urban unease." The Public Interest 12(Summer): 25-39.

III

Abbott, Edith and S. P. Breckenridge
1917 Truancy and Non-attendance in the Chicago Schools. Chicago: University of Chicago Press.

Briar, Scott and Irving Piliavin
1965 "Delinquency, situational inducements, and commitment to conformity." Social Problems 13(Summer):35-45.

Cohen, Albert K.
1955 Delinquent Boys. New York: The Free Press.

Conger, Rand D.
1976 "Social control and social learning models of delinquent behavior." Criminology 14(May, 1):17-40.

Douvan, Elizabeth and Joseph Adelson
1966 The Adolescent Experience. New York: John Wiley and Sons.

Duncan, Otis Dudley
1975 "Partitioning polytomous variables in multiway contingency analysis." Social Science Research 4(September, 3):167-182.

Elliott, Delbert S.
1966 "Delinquency, school attendance and dropout." Social Problems 13(Winter, 3):307-314.

Elliott, Delbert S. and Harwin L. Voss
1974 Delinquency and Dropout. Lexington, Mass.: D. C. Heath and Co.

Frease, Dean E.
1973a "Delinquency, social class, and the schools." Sociology and Social Research 57(July):443-459.

1973b "Schools and delinquency: some intervening processes." Pacific Sociological Review 16(October):426-448.

Gibbons, Don C.
1976 Delinquent Behavior. Englewood Cliffs, New Jersey: Prentice-Hall, Inc.

Gold, Martin
1963 Status Forces in Delinquent Boys. Ann Arbor: University of Michigan Press.

1970 Delinquent Behavior in an American City. Belmont, California: Brooks/Cole Publishing Co.

Goodman, Leo A.
1970 "The multivariate analysis of qualitative data: interactions among multiple classifications." Journal of the American Statistical Association 65(March):226-256.

Gordon, C. Wayne
1957 The Social System of the High School. Glencoe, Illinois: Free Press.

Harris, Anthony A.
1977 "Sex and theories of deviance: toward a functional theory of deviant type-scripts." American Sociological Review 42 (February, 1):3-16.

Haskell, Martin R. and Lewis Yablonsky
1974 Crime and Delinquency. Chicago: Rand McNally College Publishing Co.

Hindelang, Michael J.
1973 "Causes of delinquency: a partial replication and extension." Social Problems 20(Spring, 4):471-487.

Hirschi, Travis
1969 Causes of Delinquency. Berkeley: University of California Press.

Hirschi, Travis and Michael J. Hindelang
1977 "Intelligence and delinquency: a revisionist review." American Sociological Review 42(August, 4):571-587.

Karacki, Larry and Jackson Toby
1962 "The uncommitted adolescent: candidate for gang socialization." Sociological Inquiry 32(Spring, 2):203-215.

Kelly, Delos H. and Robert W. Balch
1971 "Social origins and school failure." Pacific Sociological Review 14(October, 4):413-430.

Kvaraceus, William C.
1945 Juvenile Delinquency and the School. New York: World Book Co.

Monahan, Thomas P.
1957 "Family status and the delinquent child: a reappraisal and some new findings." Social Forces 35(March):250-258.

Morris, Ruth R.
1964 "Female delinquency and relational problems." Social Forces 43(October, 1):82-89.

Namenwirth, J. Zvi
1969 "Failing in New Haven: an analysis of high school graduates and dropouts." Social Forces 48(September, 1):23-36.

Polk, Kenneth
1972 "Class, strain, and rebellion among adolescents." Pp. 103-114 in Kenneth Polk and Walter E. Schafer (eds.), Schools and Delinquency. Englewood Cliffs, New Jersey: Prentice-Hall, Inc.

Polk, Kenneth and Steven R. Burkett
1972 "Drinking as rebellion: a study of adolescent drinking." Pp. 116-128 in Kenneth Polk and Walter E. Schafer (eds.), Schools and Delinquency. Englewood Cliffs, New Jersey: Prentice-Hall, Inc.

Polk, Kenneth and David S. Halferty
1966 "Adolescence, commitment, and delinquency." Journal of Research in Crime and Delinquency 3(July, 2):82-96.

Polk, Kenneth and F. Lynn Richmond
1972 "Those who fail." Pp. 56-69 in Kenneth Polk and Walter E. Schafer (eds.), Schools and Delinquency. Englewood Cliffs, New Jersey: Prentice-Hall, Inc.

Rankin, Joseph H.
1976 "Investigation the interrelations among social control variables and conformity." The Journal of Criminal Law and Criminology 67(December, 4):470-480.

Rhodes, A. Lewis and Albert J. Reiss, Jr.
1969 "Apathy, truancy, and delinquency as adaptations to school failure." Social Forces 48(September, 1):12-22.

Schafer, Walter E.
1972 "Participation in interscholastic athletics and delinquency: a preliminary study." Pp. 92-101 in Kenneth Polk and Walter E. Schafer (eds.), Schools and Delinquency. Englewood Cliffs, New Jersey: Prentice-Hall, Inc.

Schafer, Walter E. and Kenneth Polk
1967 "Delinquency and the schools." Pp. 222-277 in The President's Commission on Law Enforcement and Administration of Justice, Task Force Report: Juvenile Delinquency and Youth Crime. Washington, D. C.: U.S. Government Printing Office.

Stinchcombe, Arthur L.
1964 Rebellion in a High School. Chicago: Quadrangle Books.

Winter, Robert D. and Rosemary C. Sarri
1965 "Malperformance in the public school: a group work approach." Social Work 10:3-13.

Wilkinson, Karen
1974 "The broken family and juvenile delinquency: scientific explanation or ideology?" Social Problems 21(June, 5): 726-739.