

Does Dropping Out of School Enhance Delinquent Involvement? Results From a Large-Scale National Probability Sample*

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This study seeks to improve on previous research on the relationship between dropping out of school and later involvement in delinquency. Using data from the first two waves of the National Longitudinal Survey of Youth, the analysis addresses two problems with prior studies in this area: (1) By controlling for many variables that may account for observed dropout-delinquency associations, it is possible to explore the possibility that the relationship may be spurious. (2) By examining the effects of different reasons for dropping out, the study avoids the assumption that dropouts are a homogeneous group. Results indicate that the effect of dropping out of school on later offending is more complicated than previous research leads one to believe. In addition, dropping out does not always enhance the likelihood of a person's later delinquent involvement.

Despite research spanning two decades, knowledge about the effects of dropping out of high school on delinquent behavior is uncertain. Some evidence is consistent with each of three possibilities: (1) dropping out has no effect on subsequent offending (Bachman et al, 1978), (2) dropping out reduces delinquency (Elliott and Voss, 1974), and (3) dropping out increases misbehavior (Thornberry et al, 1985). Moreover, even when data have indicated a positive relationship between dropping out and delinquency, it is not clear whether differences in offending between those who leave school before graduating and those who remain are actually caused by dropping out. Because dropping out and delinquency are correlated with many of the same fac-

tors (e.g., school failure, prior misconduct), and because past research has not controlled for these "common causes," the observed relationships between dropping out and delinquency may be spurious. In addition, the effects of dropping out on delinquency may depend on the reason one leaves school. Dropping out may exacerbate delinquency for those who would like to finish school, but it may reduce delinquency among those who dislike school.

This study seeks to improve understanding of the effects of dropping out on subsequent delinquency by examining the relationship between the two. Antecedent variables are controlled to determine possible spurious associations between dropping out and later offending. In addition, the association between dropping out and delinquency is examined separately for groups of youths who reported different reasons for leaving school.

Theoretical Background: Dropping out and Delinquency

Theories of delinquency have not specifically addressed the relationship between dropping out of high school and subsequent delinquency. Expectations regarding this relationship, however, can be inferred from some theories. In fact, both strain theory and social control theory have been invoked to explain empirical findings on the relationship between dropping out and subsequent delinquency.

Strain

Strain theory addresses problems of adjustment faced by youths in the school setting. These adjustment problems may take many forms: the inability of working-class youths to measure up to the middle-class standards of the school (Cohen, 1955); a low probability of educational success for lower class youths, which leads to frustration in seeking to

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Strain and social control theories are not the only theories that examine the school-delinquency link. The role of school in the development of delinquent behavior has also been described using labeling (Tannenbaum, 1938) and differential association (Dunham and Alpert, 1987), for example. The literature on dropping out and delinquency, however, focuses almost exclusively on strain and social control explanations. As a result, this paper only considers explanations based on these two theories.

achieve their goals of monetary **success** or a **middle-class way of life** (Cloward and Ohlin, 1960); the **failure of middle-class youths in their educational endeavors**, which in turn, limits their **opportunities** for social advancement (Elliott and Voss, 1974); and the inability to escape from adverse **circumstances** in the **school** setting (Agnew, 1985). Regardless of **the actual** nature of the adjustment problem, strain theory suggests that one possible solution to such pressures is involvement in delinquency. An alternative solution is to **"escape"** from the **source of frustration** (Cloward and Ohlin, 1960; Cohen, 1955; Elliott and Voss, 1974). Since dropping out and delinquency are alternative responses to the same problem, dropping out should not enhance participation in delinquency. In fact, **several** studies of the **dropout-delinquency** relationship have **concluded** that the rate of delinquent behavior decreases after a dropout's exit from school (see Elliott and Voss, 1974, for a review).

If, however, a student **chooses** delinquency as a solution to the problem of adjustment and, for instance, joins a delinquent subculture (Cohen, 1955; Cloward and Ohlin, 1960), it is unlikely that leaving school will have a dampening **effect** on later offending behavior (Wilson and Herrnstein, 1985). Similarly, Agnew (1985) notes that youths who drop out of **school** may still face aversive conditions at home. Dropping out of **school** may, in fact, create or intensify the aversive **nature** of some **youth's relationships with their parents**. If so, dropping out may not eliminate **all** the motivation for delinquency. For these youths, dropping out may either have no **effect** on subsequent offending, or it may increase the likelihood of **future** delinquency.

Farnworth and Leiber (1989) suggest another form of the relationship between dropping out and delinquency based on strain theory assumptions. They reason that in the United States

today, most youths understand that to get a job that pays well they must have a college education. As **such**, youths, who have goals **of economic success but see little chance of completing a college education** have a high **probability** of delinquent involvement. Results of the Farnworth and Leiber study support this hypothesis for both utilitarian and nonutilitarian forms of delinquency. Thus, youths who drop out of high school have effectively **blocked** their **means** of achieving a **college education**. If these dropouts, in turn, have goals of economic success, they may be more likely to engage in delinquency as a result of dropping out. Strain theory, therefore, can be interpreted to suggest several **different** forms of the dropout-delinquency relationship.

Social Control

On the surface, social control theory is less ambiguous regarding the relationship between dropping out and delinquency. According to Hirschi (1969), a strong social bond to the **school** setting is critical for inhibiting participation in delinquent behavior. Breaking this bond may lead to an **increased likelihood** of delinquent involvement. That dropouts have higher **rates** of offending than high school graduates is often considered as **support** for a social control explanation of the dropout-delinquency relationship (Polk et al., 1981; Thornberry et al., 1985). Yet, dropping out may not represent the same change in the **social bond** to all dropouts. By the time they leave **school**, many dropouts already **have a weak social bond with the school**. The youth who leaves school to take job or to get married, however, may actually develop a stronger **social bond** and, in turn a reduced likelihood of subsequent offending behavior.

Recently, Gottfredson and Hirschi (1990) have argued that dropping out of **school** will not change a person's propensity for **criminality**. Rather, **situational** factors may interact with a **person's degree of self-control to present**

the opportunity for criminal behavior. While it is possible that **dropping out** may increase opportunities for **criminal involvement**, it is also possible that dropping out may reduce the **number of opportunities** for delinquent **behavior** (e.g.; opportunities in the **school** for theft, interactions with peers; see Garofalo et al, 1987).

Further Specification

Because of the **limited** theoretical and empirical knowledge of the nature of the relationship between dropping out and delinquency, it is more appropriate to take an **inductive** approach in assessing the effects of dropping out. Building on what is already **known**, this study seeks to provide a more complete **understanding of the relationship between** dropping out of high **school** and later offending behavior. Results of this analysis may then be useful in revising **existing** theories.

Differences Among Dropouts.

While previous research has viewed dropouts as a homogeneous group, this **study considers differences among dropouts**. A focus on reasons for leaving **school** may **reveal** that for some subgroups of **dropouts**, dropping out **enhances** delinquent involvement, while in other cases, dropping out does not enhance participation in delinquency. Elliott and Voss (1974) raised this concern in their review of the literature and made **some** effort in their study to distinguish between dropouts who **were** intellectually capable of completing **school** and **those** not capable. Reasons for dropping out of school are often grouped into three categories (Rumberger, 1983): (1) school-related reasons, (2) personal reasons, and (3) economic reasons. However, each of these categories may be further broken into subcategories. For **instance**, school-related reasons include leaving **school** because of academic or behavioral **difficulty** or because the youth dislikes school. Personal reasons include **mar-**

riage, and/or pregnancy. Economic reasons include employment or problems at home that require the youth to forego school in lieu of family responsibilities.

Alternative Explanations

Much of the previous research has not considered variables that could explain the relationship between dropping out and delinquency. For example, Elliott and Voss (1974) found that immediately after leaving school, their subjects' rates of offending decreased, thus supporting the notion that dropping out reduces delinquency for those already engaging in delinquency. However, they did not control for age, which could explain the decline. Research has shown that during the teenaged years, the rate of offending increases until age 16 and then sharply decreases thereafter (Wolfgang et al., 1987).

In contrast, Thornberry et al. (1985) showed dropouts have higher rates of offending than high school graduates. Previous offending, however, was ignored, despite the fact that prior to leaving school, dropouts had higher rates of offending than eventual graduates. Earlier involvement in misconduct and criminal behavior predicts later participation in criminality (Farrington, 1987); it also predicts dropping out (Bachman et al., 1971; Elliott and Voss, 1974). Failure to control for previous offending can result in a biased estimate of the effect of dropping out on later criminality by inflating the effect of dropping out.

Similarly, both strain and control theories identify poor school performance as a cause of delinquency. School failure is associated with blocked goals as well as with an attenuation of the so-

cial bond. It is important, then, to separate the effects of school failure on delinquent involvement from the dropout-delinquency association. Studies that control for previous school performance and misconduct increase the credibility of findings that dropping out leads to delinquency.

Since the concern here is the effects of dropping out on future offending, it is also important to consider what goes on in the time between leaving school and later criminality. The impact of postschool experiences on the relationship between dropping out of high school and subsequent delinquency has been a neglected area of research. Some effort has been made to examine the effects of employment (Elliott and Voss, 1974; Farrington et al., 1986; Hartnagel and Krahn, 1989; Thornberry et al., 1985) and marriage (Elliott and Voss, 1974; Thornberry et al., 1985). Research, however, has not provided a clear understanding of the role that employment and marriage play in the relationship between quitting school and later delinquency. Other postschool factors that may have an impact (e.g., living arrangements, parenthood) have yet to be examined. Yet, as Natriello et al. (1986) have suggested, the effects of such postschool experiences must be separated to get a more accurate picture of the effects of dropping out on involvement in delinquency.

This study is designed to address inadequacies of previous research. The primary focus of the analysis is to determine whether dropping out has an effect on subsequent offending behavior. As yet, clear empirical answers to this question are lacking. In this study, the group of dropouts is divided into sub-

groups based on self-reported reasons for leaving school. This allows for the consideration of differential effects of dropping out on delinquency among the subgroups. In addition, this study provides improved clarification of the dropout-delinquency relationship by controlling for potential alternative explanations of the relationship.

Design of Study

The data used in this study make up the first two waves of the National Longitudinal survey of Youth, collected by the National Opinion Research Center beginning in 1979.² The first wave of the study, 1979, had a sample size of 12,686 individuals. In the 1980 wave, interviews were conducted with 12,141 of the original respondents (95.7 % of the 1979 sample). The large sample size, along with the oversampling of populations normally under-represented in empirical research (but overrepresented in criminal justice system processing), provides for a stronger examination of the issues than has previously been possible. Another strength of these data is the degree of detail and comprehensiveness of labor market and school measures.

The portion of the sample included in this analysis consists of all individuals who either dropped out or graduated from high school as of the 1979 interview. (Of those who graduated from high school, some went on to college.) Most, though not all, of the people in this subsample were over 18. A person is classified as a dropout if he or she had not earned a high school diploma and was no longer going to high school as of the 1979 interview? To distinguish for which groups of dropouts involve-

²The data collection process involved drawing three independent probability samples which, together, were "designed to represent the entire population of youth born in the United States between 1957 and 1964" (Center for Human Resource Research, 1988:20). Two of the probability samples are used in this study: (1) a cross-sectional sample designed to be representative of the noninstitutionalized civilian segment of American young people aged 14-21 on January 1, 1979 and (2) a supplemental sample designed to oversample civilian Hispanic, black, and economically disadvantaged non-Hispanic, non-black youths (p. 20). The third sample, made up of those individuals in the military, is not used in this study. Individuals were selected for inclusion in the sample "through a multi-stage stratified probability sample of dwelling units and group quarter units" (p. 20).

³Being classified as a dropout for the analysis does not mean that the individual could not go back to school at some point in the future.

ment in later offending was more likely, the **subsample** of high school dropouts **has** been divided into groups **based** on the stated reason for, leaving school.⁵ Reasons for leaving were marriage, pregnancy, poor grades, dislike of school for reasons other than poor grades, problems at home, financial reasons or **employment**, expulsion or other **(unspecified) reasons.**⁵

The design of the **analysis** is **such** that the **findings are specific** to classes of offenses. Results **are** reported separately for violent **offenses**, thefts, and selling drugs. **Violent offenses** include **using force to obtain things and attacking with the intent to injure** or kill. **Theft** includes **shoplifting**, stealing others' belongings worth less **than \$50**, stealing others' belongings worth **more than \$50**, and taking an **auto** without the **owner's** permission. **Selling** drugs refers to the sale of either **marijuana/hashish** or hard drugs. Each of these variables was constructed using data from the 1980 interviews only. All of the independent variables used in this analysis were taken from **the** 1979 interviews.

This study is also designed to test whether alternative factors can account for the effects of dropping out on subsequent delinquency. As a result, several control variables are used. Control variables are included if **they** meet **one** of **two** criteria. First, several factors **are** included as controls because they **are** identified in delinquency theories as being related to the dropout-delinquency relationship. **These** factors include measures of prior misconduct,

school **performance and** experiences, **and postschool factors, such as marriage and** employment. Second, items are included as control variables **if they have** been **shown** in related research **to have** an **effect on delinquent behavior (e.g., demographic characteristics of the individual).**

Self-reports of delinquency appear only in the 1980 wave of data. However, **self-reported** information on **involvement with the criminal justice system before 1979** is available. As a **measure** of previous involvement in delinquency, the variable for any prior **arrests, excluding** minor **traffic offenses**, is **used**. While not as complete a measure of prior offending as self-reports of delinquent behavior, the variable does allow for some control of the **effect** of previous delinquency. A measure of school misbehavior, indicating whether the youth was ever suspended from school, is also included in the model.

Recent research has suggested **sexual** activity during adolescence to be one of a constellation of problem behaviors (Elliott and Morse, 1989; Jessor et al., 1983). Elliott and Morse (1989) have found teenaged **sexual** activity to be tied to delinquency **and drug use and** to indicate a "general propensity" for "risky behaviors" (p. 56). A variable **measuring** the number of years that a youth has been sexually active is, thus, included in this **study**. This **measure** is used rather **than** the age at **first** **sexual intercourse** since many of the youths in **the** sample were not yet sexually active.

School-related factors **included** in the **analysis measure academic performance** and type of **curriculum track**. Academic **performance** is **measured** as the grade point average (**GPA**) received in high school **courses**. The **type of curriculum track** is **represented by dummy variables** for the **vocational and college-preparatory** tracks. The **reference category** for **each of these** represents an individual's **placement in a general or business track**. In **addition, measures of gender, raw, and age** are included as control variables. (**The appendix** presents descriptive **statistics** on each of the control variables.⁶) **Postschool** experiences are also **considered in this analysis**.

Design of Model

The measures of **the** dependent variables **used** in this analysis **are** ordinal-level **measures**. Respondents **were** asked to report how many **times** over the previous **year** they had engaged in each of the **specific** behaviors. They were provided with the following **set** of response categories: 0 (never), 1 (once), 2 (**twice**), 3 (3-5 times), 4 (6-10 times), 5 (**11-50** times) and 6 (over 50 times). **McKelvey and Zavoina** (1975) show that a problem with **using** linear regression analysis in **such** cases is the **potential for significantly underestimating the effects of independent variables on the dependent variable**. A more appropriate method, according to **McKelvey and Zavoina**, is to **use** the ordered **probit** model. This model distinguishes **between Y**, the dependent variable of **theoretical** interest, and **Z**, the dependent variable that is observed. **There** is the **assumption that Y**

⁵All youths no longer in school **were** asked why they **left** school. Most youths reported that they had graduated. For those who left school **prior** to graduation, however, **the interviewers were** instructed to ascertain which of **several reasons** was the primary **reason** for leaving school. That is the **reason** used in classifying the dropout **into** the subgroups.

We "other reasons" **are unspecified** in the documentation of the data set. In this analysis, this **category** also includes individuals who **left** school **because** it was dangerous and those who **left** to go into the military and **then** did not enlist. These two groups were **too** small to keep as separate categories and have been merged into the category for "other reasons."

⁶A problem associated with survey data is that the data **are** often incomplete **due** to **nonresponse**. Missing data for specific questions present difficulties **because** most statistical packages **will** drop cases with missing data **on** any of the variables included in the analyses. Yet, one must **be** able to retain as many **cases** in a sample as possible in **order** to avoid biased results. In this study, four variables **are** included for which data **were** missing for **more** than 0.5 % of the cases. In the **case** of interval-level variables (**i.e.**, years sexually active and GPA), I **set** the missing values to the **mean** of that variable. In the **case** of ordinal-level measures (**i.e.**, suspensions from **school** and the **curriculum track**), I **set** the missing values to the **modal** category.

is an interval-level variable, but due to **deficient** measurement, it is represented by an **ordinal** form, namely Z .

Thus, **interest** centers on **estimating**

$$Y = \beta'X + u.$$

Y , however, is unobserved. Instead, the observation is

$$\begin{aligned} Z &= 0 \text{ if } Y \leq 0, \\ &= 1 \text{ if } 0 \leq Y \leq \mu_1 \\ &= 2 \text{ if } \mu_1 \leq Y \leq \mu_2 \\ &\vdots \\ &= J \text{ if } \mu_{j-1} \leq Y \end{aligned}$$

The **ordered probit model** estimates the μ 's along with β (Greene, 1990). Each estimated β represents the increase in probability of being in a **higher** category on the dependent variable (i.e., reporting a higher level of **offending**) as a result of a unit change in the independent variable (McKelvey and Zavoina, 1975). Given the estimates of this model, the predicted probabilities of being in each of the response categories of the dependent variable can be calculated as follows (McKelvey and Zavoina, 1975):

$$\begin{aligned} \text{Prob}[PO] &= \Phi(-\beta'X), \\ \text{Prob}[Y=1] &= \Phi(\mu_1 - \beta'X) - \Phi(-\beta'X), \\ \text{Prob}[Y=2] &= \Phi(\mu_2 - \beta'X) - \Phi(\mu_1 - \beta'X), \end{aligned}$$

$$\text{Prob}[Y=J] = 1 - \Phi(\mu_{j-1} - \beta'X),$$

Where $\Phi(t)$ represents the **cumulative standard normal density function**.

The analysis consists of a series of four models, each one including a **block of new variables**. Model I includes only the dropout variables (and a variable controlling for the **number of months** since **dropping out**) as independent variables.

The dummy variable indicating graduation **from** high school is not included **in** the analysis; it serves as a reference **category** to **each** of the dropout measures. **Results** from model I show gross differences in delinquent involvement between groups and indicate whether **each** group of dropouts is more **likely** to report participation in delinquency than the high school graduates. To test whether these **differences** are attributable to dropping out of high school, control variables that may actually explain the observed **differences** are included in successive models. The measures of individual demographic characteristics are introduced in model II. Model III adds the block of measures **of prior misconduct**. The **block of school factors** enter the analysis in model IV.

The **coefficients** of **primary** interest in each of the models are the **effects** of dropping out on future offending. The focus is on the changes that occur in **the coefficients of the dropout measures**. Three possibilities exist. First, the effects of a **specific** dropout measure may remain significantly related to later delinquent involvement. This would indicate that the effects of dropping out for that reason on participation in **criminality** are independent of the effects of the other variables **added to** the model. A second possibility is **that** the addition of variables will result in a reduction of the **effect** of the dropout measures. This would be evidence that the **effect** on delinquency of dropping out for certain reasons is explained by other variables, which up to that point, were not in the model. The third possible **change** is that including an additional set of variables may strengthen the effects of the dropout measures on delinquency. This would indicate that one or more of the new variables acts as a suppressor on the **effect** of the **dropout-de-**

linquency relationship for one or more of the dropout **measures**.⁷

Quality of Data on Criminal Behavior

It is **appropriate** at this point to comment on the reliability and validity of the **self-reported** measures being used in this analysis. Several concerns have been **raised** regarding self-report data (Hindelang et al., 1981; Short, 1990). Given that the data in this study come **from a** national probability **sample with oversampling** of high-risk groups (blacks and lower class youths), there is not great concern regarding the **representativeness** of the sample.

The procedure for asking **questions** on delinquency involved having the respondents fill out a short questionnaire during the interview, which asked how often in the previous year they had participated in each of the **identified behaviors**. **Once** they had completed the questionnaire, the respondents were instructed to place the form in an envelope and seal it. The interviewer did not open the **envelope** in the presence of the respondent. This procedure has some strengths and some weaknesses. On the positive side, the respondents are **only** asked to remember behaviors within the past year (although there is some evidence that time windows of one year may still be too long, see Short, 1990, for a summary of evidence). In addition, with regard to the concern of **socially desirable responses**, this procedure minimizes the effect of the interviewer's reaction to the respondent's answers. **On** the negative side, however, this procedure does little to alleviate concerns about the ability of the respondent to understand what the questions are asking (Hindelang et al., 1981), although **Hispanic** respondents had the option of completing the

⁷If the addition of a control variable strengthens the effect of another variable, it may be the result of collinearity between the two variables. A chi-square test can be used to test the hypothesis that the change in the effect is due to collinearity. Such a test is conducted when appropriate in the analysis.

interview (including the self-report questionnaire) in Spanish.

Findings

Results are reported separately for the offenses of violence (Table 1), theft (Table 2), and selling drugs (Table 3).⁸ Each table includes four columns, one for each of four models representing greater inclusion of variables as one moves from column I to column IV across the tables. Actual results from the ordered probit analyses are presented in these tables. Predicted probabilities, calculated from these results, are presented in Table 4.

Violence

Column I of Table 1 reports estimates of the level of Involvement in violence for eight groups of youths differentiated by the most important reason they gave for leaving school before graduation. Five of the groups (those who dropped out to get married and/or were pregnant, those who disliked school, and those who were expelled or dropped out for other reasons) show significantly higher levels of violence than those who stayed in school. The other three groups (those who dropped out because of poor grades, problems at home, or financial difficulties) did not differ significantly from graduates.

The demographic variables enter the model in state II (results in column II).⁹

While expelled youths were still more likely to report higher levels of involvement in violence than the high school graduates, controlling for the combination of race and gender reduces the effect of being expelled.¹⁰ This is because a majority of the youths who were expelled and then engaged in violent offending were male and/or black. The effects of the dropout measures for pregnancy and getting married on involvement in violence are enhanced following the addition of the demographic factors. Controlling for gender actually specifies the relationship between leaving school to get married and future involvement in violence. In this sample, 16 % of those who left school to get married reported later participation in violence. Holding gender constant shows that of those who dropped out to get married, 37 % of the males reported violent behavior compared with 13 % of the females.

Including the measures of prior misconduct (stage III) reduces further (almost to zero) the effect of being expelled on the level of involvement in violence. Following the same procedure described in note IO, controlling for prior arrests and suspensions from school explains the expelled-violence relationship. Findings presented here support the position that, at least for those expelled, the observed relationship between leaving school before graduation and later

violent offending can be attributed to prior misconduct.

Once all of the control variables have entered the model,¹¹ those individuals who dropped out to get married, because of pregnancy, because they disliked school, or for other unspecified reasons were still more likely to report involvement in violent behavior than the high school graduates. The other groups (those who dropped out due to poor grades, problems at home, or financial reasons and those who were expelled) were not significantly different in their level of involvement in violence from the high school graduates, as a result of dropping out.

Theft

Table 2 presents findings on the level of involvement in theft.¹² Some similarities to the results on participation in violence exist. For instance, those who dropped out because they disliked school or because of other unspecified reasons reported significantly higher levels of stealing than did the high school graduates. These effects are reduced, yet still significant, after introducing the control variables into the model. Also similar to the results on the dropout-violence relationship, those who dropped out because of problems at home were not significantly different from the high school graduates in their stealing behavior.

All of the results presented in this study have been weighted to facilitate generalizations back to the population of interest. Sample weights are provided in the data which correct for oversampling of minority and lower income persons. Thus, the results here are estimates for the population of all civilian youths aged 14-22 in the United States in 1979.

The inclusion of the block of demographic variables results in a significant improvement in the fit of the model. To test the significance of the difference, the difference of the log likelihoods of the current model and the preceding model is multiplied by two. This amount follows a chi-square distribution with degrees of freedom equal to the number of new predictors in the model. The values are reported in the bottom row of the tables. Since the primary purpose of including the new variables is not to improve the fit of the model, the improvements in fit are not discussed in the text.

¹⁰In order to identify which of the block of demographic variables is responsible for changes in the effects of the dropout measures, each of the new variables was entered separately. In addition, the demographic variables were entered in a stepwise fashion to examine combined effects. Results of these exploratory runs are discussed in the text, but not reported in tabular form.

¹¹Ideally, characteristics of the relationship between the youth and his/her parents should also be considered. Unfortunately, such information is lacking in this data. Related analyses included information on the family structure when the respondent was 14, as well as information on religion. Entering these variables as a block in a new model resulted in no changes to the effects reported in model IV for any of the 3 offense categories. As such, results of these analyses are not reported here.

¹²There are 5,058 individuals in the sample for this section of the analysis compared with 5,059 persons in the section on violent crimes. The difference is because of missing data on the dependent variables.

TABLE 1

Estimates from Ordered **Probit** Models of Violent Offenses
(*N* = 5,059)

Independent Variable	I	II	III	IV
D. 0. to Get Married	.253 (2.26)	.505 (4.171)	.416 (3.21)	.421 (3.30)
D. O.-Pregnancy	.290 (1.99)	.560 (3.65)	.443 (2.64)	.420 (2.461)
D. O.-Poor Grades	.260 (1.76)	.105 (.69)	-.061 (- .37)	-.096 (- .58)
D. O.-Dislike School	.573 (8.51)	.498 (7.031)	.392 (5.43)	.375 (5.04)
O. O.-Problems at Home	-.031 (- .16)	-.028 (- .13)	-.065 (- .28)	-.110 (- .47)
D. O.-Financial	.106 (1.28)	.047 (.54)	-.053 (.61)	-.074 (- .85)
Expelled	.745 (5.45)	.424 (3.03)	.121 (.84)	.099 (.67)
D. O.—Other Reasons	.373 (5.15)	.376 (4.92)	.245 (3.15)	.232 (2.921)
Months Sines Dropping Out	.042 (1.801)	.038 (1.66)	-.007 (- .29)	-.020 (- .82)
Female		-.650 (- 15.43)	-.491 (- 11.021)	-.483 (- 10.58)
Age		-.068 (4.91)	-.110 (- 6.42)	-.104 (- 6.03)
Black		.293 (3.87)	.209 (2.73)	.190 (2.44)
Hispanic			-.252 (- 1.59)	-2.65 (1.681)
Previous Arrests			.502 (- 8.611)	4.97 (8.46)
Years Sexually Active			.067 (5.97)	.064 (5.491)
Ever Suspended			.268 (5.65)	.225 (4.62)
G P A				-.108 (- 4.10)
GPA—Out of Scope				-.217 (- 3.04)
College Prep Track				-.053 (- 1.12)
Vocational Track				.151 (2.591)
μ^1	.396	.420	.439	.442
μ^2	.623	.663	.695	.698
4	.988	1.050	1.101	1.104
μ^4	1.192	1.264	1.321	1.324
μ^5	1.435	1.515	1.579	1.582
Intercept	-1.343	.249	.734	.896
Log Likelihood	-2634.3	-2526.9	-2453.0	-2443.2
Test of Difference		<i>p</i> < .001	<i>p</i> < .001	<i>p</i> = .001

NOTE: For each model, the first column reports the maximum likelihood probit coefficients and the second column reports the associated *t* values.

TABLE 2

Estimates from Ordered Probit Models of Thefts
(N=5,058)

Independent Variable	I	II	III	IV
D. 0. to Get Married	-.043 (-.49)	.044 (.47)	-.012 (-.12)	-.019 (-.19)
D. O.—Pregnancy	-.082 (.69)	.102 (.82)	.023 (.19)	.017 (.14)
D. O.—Poor Grades	.402 (3.841)	.309 (3.06)	.200 (1.90)	.188 (1.76)
D. O.—Dislike School	.418 (7.98)	.355 (6.65)	.259 (4.791)	.250 (4.58)
D. O.—Problems at Home	-.138 (.83)	-.122 (.83)	.73 (.80)	-.133 (.81)
D. O.—Financial	.200 (3.68)	.186 (3.39)	.109 (1.95)	.107 (1.88)
Expelled	.749 (6.90)	.601 (5.43)	.337 (3.071)	.330 (3.00)
D. O.—Other Reasons	.264 (4.87)	.245 (4.371)	.149 (2.60)	.142 (2.48)
Months Since Dropping Out	-.034 (-2.01)	.036 (-2.13)	-.076 (-4.341)	-.076 (-4.19)
Female		-.350 (-12.60)	-.230 (-7.97)	-.228 (-7.84)
Age		-.069 (-6.88)	-.088 (-7.71)	-.088 (-7.69)
Black		-.127 (-1.931)	-.198 (-2.961)	-.202 (-3.05)
Hispanic		-.176 (-1.66)	-.149 (-1.35)	-.148 (-1.34)
Previous Arrests			.475 (10.01)	.474 (10.00)
Years Sexually Active			.040 (5.23)	.040 (6.161)
Ever Suspended			.274 (7.48)	.272 (7.271)
GPA				-.012 (-.61)
GPA—Out of Scope				-.059 (-1.10)
College Prep Track				-.011 (-.34)
Vocational Track				.084 (1.94)
μ^1	.404	.412	.422	.442
μ^2	.662	.676	.692	.692
μ^3	1.228	1.254	1.266	1.267
μ^4	1.634	1.670	1.718	1.719
μ^5	2.326	2.379	2.463	2.463
Intercept	-.434	1.121	1.286	1.337
Log Likelihood	-5913.0	-5843.2	-5760.4	-5768.7
Test of Difference		$p < .001$	$p < .001$	$p < .49$

NOTE: For each model, the first column reports the maximum likelihood probit coefficients and the second column reports the associated *t* values.

In contrast to the results on violent offending, gross differences in column I show that those who dropped out because of poor grades or because of financial reasons reported significantly higher levels of involvement in theft than the high school graduates. After controlling for prior misbehavior, however, there is no longer a significant difference in reports of stealing behavior between the high school graduates and these two groups of dropouts. The effect of the length of time since leaving school is also different for involvement in stealing than it was for participation in violence. The longer it had been since dropping out, the lower the involvement in theft the person was likely to report.¹³ This effect is evident in column I, and it is enhanced after controlling for prior misconduct.¹⁴

Those who dropped out to get married or because of pregnancy reported higher levels of violence than did the high school graduates. The same pattern is not revealed in the analysis of theft. Youths who left school to get married or because of pregnancy were not significantly different from the high school graduates in their level of involvement in stealing behavior. Controlling for prior misbehavior explained the relationship between being expelled and later participation in violence. In the analysis of theft, controlling for measures of prior misconduct does result in a sizable reduction in the effect of being expelled, relative to graduating. Those who were expelled, though, still reported significantly higher levels of involvement in theft than the high school graduates. In fact, after all the control variables have entered the

model, only those who quit school because they did not like it or because of other unspecified reasons and those who were expelled reported significantly higher involvement in theft than the high school graduates.

Selling Drugs

The results presented in Table 3 are very similar to those regarding involvement in theft. Youths who dropped out to get married, or because of pregnancy or problems at home, were not significantly different from the high school graduates in their level of involvement in selling drugs. On the other hand, there are observed differences between the graduates and those who dropped out because of poor grades or financial reasons. Those differences, however, are not attributable to dropping out.

Also similar to the results on theft, three groups of dropout were still significantly more involved in selling drugs than the high school graduates after all the control variables are in the model: those who dropped out because they disliked school, those who dropped out due to other unspecified reasons, and those who were expelled. Controlling for prior misconduct reduces the effect of being expelled and dropping out for other reasons, but there are still significant differences between these two groups and the graduates that may be attributed to leaving school before graduation. Finally, as in the results on theft, the longer it had been since dropping out, the less likely a person was to be involved in selling drugs.

Another way to examine the effects of dropping out on later offending is to consider the predicted probability of

each level of offending based on membership in a group identified by drop out status. Table 4 presents such probabilities, calculated following the procedure described above, based on the results from model IV. This approach allows for a comparison of the probability of engaging in a certain level of offending across the nine groups (eight groups of dropouts vs. graduates), which provides a more meaningful contrast between dropouts and graduates. It also identifies which groups of dropouts had higher probabilities for delinquent involvement and which groups had lower probabilities than the graduates. For instance, those dropping out to get married or because of pregnancy had a 16.8 % chance of engaging in violent offending, high school graduates had an 8.5 % chance, and those dropping out because of problems at home had only a 6.8 % chance of involvement in violent offending. Also, while those who dropped out to get married and/or because of pregnancy had the highest probability for involvement in violent offending among the nine groups, they had the lowest probabilities of involvement in selling drugs and among the lowest for thefts. It is also evident that those who dropped out because they disliked school and those who were expelled had the highest probabilities of involvement in theft and selling drugs.

Postschool Experiences

This study also considered potential mediating effects of postschool experiences on the dropout/delinquency relationship. Several measures included in the analysis examined characteristics of postschool labor market experiences. In

¹³The variable for length of time since leaving school has only been measured for dropouts. Thus, the effect of this measure on later offending is specific to dropouts.

¹⁴In order to verify that the enhanced effect of the variable for the length of time since dropping out is not the result of collinearity with the measures of prior misconduct, a chi-square test was used. A chi-square statistic is calculated as twice the difference between the log likelihood for a logit model in which the only independent variables were the measures of prior misconduct and the log likelihood for the model that also includes the measure of length of time since dropping out. (Note that when the measure of length of time since dropping out is the only independent variable in the model, it is not significant—after including measures of prior misconduct, its effect is negative and significant.) The calculated chi-square statistic is 8.65 with 1 degree of freedom ($p < .005$). Thus, one can conclude that the enhanced effect of length of time since dropping out is not due to collinearity with the measures of prior misconduct.

TABLE 3

Estimates from Ordered Probit Models of Selling Drugs

(W = 5,028)

Independent Variable	I	II	III	IV
D. O. to Get Married	-.081 (-.63)	.084 (.60)	-.090 (-.53)	-.096 (-.56)
D. O.-Pregnancy	-.355 (-1.71)	-.007 (.04)	-.222 (-.99)	-.233 (-1.04)
D. O.-Poor Grades	.444 (3.88)	.324 (2.80)	.156 (1.22)	.134 (1.05)
D. O.-Dislike School	.516 (8.99)	.502 (7.78)	.367 (5.47)	.356 (5.17)
D. O.-Problems at Home	.099 (.57)	.145 (.79)	.118 (.65)	.103 (.55)
D. O.-Financial	.264 (3.61)	.248 (3.29)	.101 (1.29)	.084 (1.05)
Expelled	.845 (7.55)	.685 (6.04)	.272 (2.28)	.269 (2.25)
D. O.—Other Reasons	.384 (5.88)	.398 (5.53)	.212 (2.85)	.206 (2.54)
Months Since Dropping Out	.005 (.22)	.006 (.30)	-.056 (-2.55)	-.059 (-2.83)
Female		-.562 (-13.87)	-.369 (-8.51)	-.352 (-7.91)
Age		-.059 (-4.56)	-.118 (-7.25)	-.117 (-7.11)
Black		-.250 (-2.70)	-.426 (-4.58)	-.450 (-4.83)
Hispanic		-.322 (-2.03)	-.277 (-1.73)	-.287 (-1.79)
Previous Arrests			.528 (9.44)	.530 (9.45)
Years Sexually Active			.102 (9.18)	.102 (9.14)
Ever Suspended			.396 (8.72)	.374 (8.00)
GPA				-.102 (-3.98)
GPA-Out of Scope				-.242 (-3.36)
College Prep Track				-.107 (-2.29)
Vocational Track				-.034 (-.55)
μ^1	.161	.168	.180	.181
μ^2	.290	.304	.326	.327
μ^3	.488	.513	.548	.550
μ^4	.688	.723	.773	.775
μ^5	1.031	1.082	1.151	1.154
Intercept	-1.295	.147	.858	1.059
Log Likelihood	-2915.3	-2831.0	-2707.2	-2700.5
Test of Difference		$p < .001$	$p < .001$	$p < .49$

NOTE: For each model, the **first column reports** the **maximum likelihood probit coefficients** and the second column **reports** the associated **t values**.

TABLE 4

Predicted Probabilities of Level of Offending by
Categories of Dropout/Graduate Status

<u>Status</u>	Level of Offending						
	<u>Never</u>	<u>Once</u>	<u>Twice</u>	<u>3-5 Times</u>	<u>6-10 Times</u>	<u>11-50 Times</u>	<u>Over 50 Times</u>
Violent Offenses							
D. O. to Get Married	.832	.088	.032	.029	.008	.006	.005
O. O.-Pregnancy	.832	.088	.032	.029	.008	.006	.005
D. O.-Poor Grades	.931	.042	.013	.010	.002	.001	.001
D. D.-Dislike School	.843	.083	.030	.027	.007	.005	.005
D. O.-Problems at Home	.932	.041	.012	.010	.002	.001	.001
D. O.-Financial	.928	.044	.013	.010	.003	.002	.001
Expelled	.901	.057	.018	.015	.004	.002	.002
D. O.—Other Reasons	.875	.069	.023	.020	.005	.004	.003
High School Graduate	.915	.050	.016	.013	.003	.002	.002
Thefts							
D. O. to Get Married	.671	.135	.065	.086	.027	.013	.002
D. O.-Pregnancy	.658	.138	.068	.091	.028	.015	.002
D. O.-Poor Grades	.593	.151	.079	.113	.039	.022	.003
D. D.-Dislike School	.569	.155	.082	.121	.043	.025	.004
D. O.-Problems at Home	.712	.125	.058	.073	.021	.010	.001
D. O.-Financial	.625	.146	.073	.102	.033	.018	.003
Expelled	.538	.160	.087	.132	.049	.030	.005
D. O.-Other Reasons	.611	.148	.076	.107	.036	.020	.003
High School Graduate	.650	.140	.069	.093	.030	.015	.002
Selling Drugs							
D. O. to Get Married	.926	.022	.014	.015	.010	.009	.004
D. O.-Pregnancy	.944	.018	.011	.012	.007	.006	.003
D. O.-Poor Grades	.889	.031	.020	.023	.015	.014	.009
D. O.-Dislike School	.841	.040	.027	.032	.023	.023	.015
D. O.—Problems at Home	.894	.029	.019	.022	.015	.014	.008
D. O.—Financial	.898	.029	.018	.021	.014	.013	.007
Expelled	.861	.036	.024	.028	.020	.019	.012
D. O.—Other Reasons	.874	.034	.022	.025	.018	.017	.010
High School Graduate	.907	.027	.017	.019	.013	.011	.006

addition, **measures of marital status, presence of children, living arrangements, and religious participation** were included in the subsequent **models. Results** indicated that with one **exception, postschool experiences did not have an effect on the relationship between dropping out and later offending behavior, regardless of the type of offense.** For those who **left school to get married, marital status served to specify the dropout-violence relationship.** Among this **group, those who never married, as well as those who married and then separated or divorced, were more likely to report involvement in violence than the high school graduates.** Those who married and were still living with their spouse were not significantly **different in violent offending from the high school graduates.**¹⁵

Summary and Discussion

Table 5 presents a **summary of findings from the analysis for each group of dropouts and for each of the three offense categories.** The table depicts **the change in the dropout-delinquency relationship from the gross differences between dropouts and graduates to the effects after all control variables are introduced into the model.**

The most consistent result of the study is **that dropping out because the youth disliked school or because of other unspecified reasons was related to future involvement in delinquency, regardless of type of offense.** These groups of dropouts were **more likely to be delinquent than the high school graduates, and this appears to be due, in part, to dropping out.**¹⁶ Another result that is consistent

across type of offense involves the group of dropouts who left school because of problems at home. This group did **not report higher levels of offending than the graduates, and dropping out did not lead to later criminal behavior for these youths.**

For those youths who **left school for financial reasons (i.e., to get a job) or because of poor grades, dropping out did not enhance future participation in crime.** It is clear from stage I of the analyses, however, that **dropouts in these two groups were more likely to report higher levels of involvement in theft and selling drugs than the high school graduates.** These groups were not **different from graduates in terms of violent offending, though.**

Those youths who were expelled reported higher levels of involvement in delinquent behavior than the graduates, regardless of **offense type.** As **suspected, though, differences in violent offending between those expelled and graduates were explained by participation in prior misconduct, not by leaving school before graduation.** While controlling for prior misconduct does substantially reduce the **effect of expulsion on subsequent involvement in theft and selling drugs, those youths who were expelled were still more likely to report higher levels of involvement in these behaviors than the high school graduates.**

Dropping out for personal reasons (i.e., marriage, **pregnancy**) has been shown **in this analysis to have no effect on subsequent theft or selling drugs, but to be significantly related to future violent offending.** This is perhaps **the most un-**

expected finding **of this study.** Agnew's (1985) revised strain theory offers a possible explanation for the relationship, however. Leaving school eliminates one form of aversive situation from the youths' **lives.** If the home environment is also viewed as aversive, however, they **may still be motivated to engage in delinquency.** One form of behavior **that Agnew found to be predicted by aversive school and home experiences is interpersonal aggression.** If **the reason for leaving school creates or aggravates the aversive nature of the home situation, then dropping out may lead to a higher likelihood of violent offending (i.e., aggravated assault).** Having a baby is likely to **create or aggravate aversive conditions for a teenager.** In addition, results of this study show that dropping out to get married led to violent offending, **particularly for those youths who experienced a failed marriage.** There is no **information on the victim in these data, but it is possible that the interpersonal violence of these youths may have been directed at a spouse or a child.**

Conclusion

This study sought to **improve on previous research on the dropout-delinquency relationship** by focusing on whether dropping out had any actual **effects on subsequent delinquency, independent of other criminogenic factors.** This was done by trying to control for many of the factors **that are known to be associated with dropping out, as well as delinquency.** Findings show that many of the apparent **drop-**

¹⁵This section of the analysis involved a two-step process. First, another block of control variables was added to the model presented in stage IV of Tables 1-3. This block included all of the identified postschool measures. This step of the analysis resulted in no change in the effects of dropping out on later offending behavior. Second, several interactions were considered to examine further the effects of such postschool experiences as marriage and living arrangements and to examine the change in effects after dropping out over time. From this step of the analysis, the effects of marital disruption were identified. The large number of additional tables that would have been necessary to present the results of these latter analyses is impractical. Therefore, there is no tabular presentation of these findings.

¹⁶This raises the question of what these "other reasons" may be. As noted, there is no information with the data, about why these youths left school. Mann (1986) suggests that, based on anecdotal information relating to the original interviews, many of the youths in this category reached 12th grade later than normal (as a result of being held back in earlier grades) and simply drifted away from school before actually graduating.

TABLE 5

Summary of Results: Changes from Stage I to Stage IV of Analysis, in the Effects of Specific Reasons, for Dropping Out on Reported Participation in Violence, Theft, and Selling Drugs

Dropout Reason	Violence	Theft	Selling Drugs
To Get Married	= → + +	n.s. → n.s.	n.s. → n.s.
Pregnancy	+ → + +	n.s. → n.s.	n.s. → n.s.
Poor Grades	n.s. → n.s.	= → n.s.	= → n.s.
Dislike School	+ + → +	+ + → +	+ + → +
Problems at Home	n.s. → n.s.	n.s. → n.s.	n.s. → n.s.
Financial Reasons	n.s. → n.s.	+ → n.s.	+ → n.s.
Expelled	+ → n.s.	+ + → +	+ + → +
Other Reasons	+ + → +	+ + → +	+ + → +

NOTE: Each cell of the table indicates the change from stage I of the analysis to stage IV of the analysis: "+" indicates the relationship is positive and statistically significant, "n.s." indicates the relationship is not statistically significant, "+ +" indicates at which stage the relationship was stronger in those cases in which the relationship was positive and significant at both stage I and stage IV.

out-delinquency relationships can be explained by measures of prior misconduct (i.e., prior arrests, years sexually active, suspensions from school) and demographic factors (i.e., gender, race, age). Out of 24 possible dropout-delinquency relationships (8 reasons for chopping out, 3 offense categories), only 10 are significant after all the control variables are included in the analysis. Thus, while dropouts were more likely to have higher levels of involvement in delinquency than graduates, it was not always because they dropped out.¹⁷

This study also sought to improve on previous research by examining differences between subgroups of dropouts. It would be premature to conclude that dropping out does not lead to involve-

ment in criminal behavior. since this study found that for certain groups of dropouts, the relationship between leaving school without a diploma and subsequent offending could not be explained by the control variables used in his analysis. This raises the question of whether other factors, not considered in this study, may account for these relationships. It maybe that dropping out for personal reasons and violent offending are both caused by common factors that have not been taken into account here. For instance,, measures of the nature of interaction within the family, which are not available in the data, may have an impact on the likelihood of violent offending as well as the likelihood of teenaged pregnancy and premature marriage. It may also be the case that

youths who leave school early to get married or because of pregnancy are more likely to find themselves in violent situations. Chavez et al. (1989) found that some high school dropouts were more likely to engage in violence because they were more likely to live in violent environments. The dropouts most likely to exhibit violent behavior were most likely to be victims of violent acts themselves. These findings support more general evidence in criminological research that risk of victimization and participation in delinquency are often part of the same life-style (Lauritsen et al., 1991).

Future research should focus specifically on the group of youths who drop out because they dislike school. Dislike of school is probably a very common complaint among high school students. Yet, not all students who dislike school drop wt. Some may even to on to higher education and continue to dislike school. Additionally, it is likely that a youth who dislikes school may welcome the opportunity for a good job or to get married. This is a way out of the school setting. Some may even appreciate being thrown out of schwl. What is it, then, that sets those dropouts who leave school because they do not like it apart from other dropouts? Choosing not to stay in schwl when they are likely to have been able to graduate may be the critical difference (Elliott and Voss, 1974). Some dropouts do not have a choice on whether to quit school (i.e., there are problems at home, they were thrown out of school, they are pregnant). Others choose to move into an adult lie-style by taking a job or by getting married. Dropouts also leave school because there is no hope of finishing school. Youths who quit schwl because they do not want to go anymore may transfer a similar pattern @quitting to their labor market experiences.

¹⁷In fact, if the analysis is carried out with all dropouts considered together as a group, results in stage IV of Tables 1-3 would suggest that dropouts are not more likely to engage in delinquency as a result of leaving school early. (Results not presented here-tables available from author upon request.) More is learned about the dropout-delinquency relationship by considering the differences based on reasons for leaving.

The data **provide** no **clue** as to what about school is unappealing for these youths. Some **common** complaints about school, though, **include** that it is boring, **unchallenging**, and that youths are not **learning** anything. **School** is not seen **as** being relevant to the youth's future, even for **employment** (Fine, 1986). This is particularly true of inner-city youths. Because of overcrowding in the schools, they **often** may feel **alienated** and anonymous. Such youths do not see themselves as being able to contribute to their school **experience**.

As a result of this study, a little more is known about the nature of the relationship between dropping out and subsequent delinquent involvement. **There** are no **criminological theories** that adequately explain the **dropout-delinquency** relationship. To develop a more systematic theory that addresses this relationship, future **work** in this area should continue to **clarify** the differential nature **of this** association. Effective interventions **targeting dropout** and **delinquency prevention** will be viable only when a more complete understanding of the **dropout-delinquency** relationship is achieved. In **addition** to distinguishing among groups of **dropouts**, future research should also examine the nature **of the dropout-delinquency connection** as it varies among subgroups **of the** population (e.g., **differences** among subgroups distinguished by social class, race, of **social** context).

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Higher Education Becoming Elusive for Lower-Income Students

NEW YORK—A college education—still the ticket to the good life—is eluding the reach of a growing proportion of lower-income Americans. Not that it hasn't always been hard for poor kids to go to school. But national statistics suggest that kids who might have gone to school a few years ago are no longer making it.

That's something everyone should worry about—especially during federal budget season when, once again, harsh cuts in student aid are on the table. They probably will not be approved by the Congress. But the question is, why have these cuts been proposed at all?

The proportion of young, dependent, full-time students in college—from families with incomes under \$20,000—dropped 3 percent between 1978 and 1984, according to the latest U.S. census data, adjusted for inflation. From this, it appears that a smaller portion of lower-income Americans may be getting the education they need to master jobs in today's technological, white-collar society.

Over the same period, the proportion of such students in college from families earning over \$35,000 rose by 8 percent, inflation-adjusted. So the education gap is growing worse between families with below- and above-average incomes.

Looking solely at first-time entering freshmen, only one student in five had a family income under \$20,000 in 1986, compared with two students in five in 1980, according to a joint survey done annually by UCLA and the American Council on Education. After inflation, that represents a loss of roughly 20 percent in the portion of such kids in school, says Kenneth Green, associate director of UCLA's Higher Education Research Institute.

The U.S. Department of Education disputes UCLA's figures; UCLA, of course, defends them. But no matter which set of data you look at, the general trend remains the same.

The reasons for losing low-income students aren't hard to find. College costs are soaring—up 79 percent since 1970 for a state university. Four-year public colleges are currently charging an average of \$6,604 a year, and four-year private colleges, \$10,199, according to the College Board.

Lower-income students are more apt to go to a community college at an average cost of \$3,768. Yet it's these very two-year colleges, that, in particular, are losing black students, the Education Department reports—another likely sign of financial stress.

To pay these enormous college bills, a low-income student needs a lot of help. But median family incomes have been pretty flat, adjusted for inflation, and real average weekly earnings dropped from 1980 to 1986. Generally higher unemployment and underemployment in the 1980s, on the part of parents, puts more pressure on low-income high school graduates to get a job.

In 1981, Congress and the administration agreed to cut student benefits out of the Social Security program. Those payments had helped lower-income students disproportionately.

Aid under the GI Bill started down in the mid-1970s, when Vietnam-era veterans started to reach the end of their eligibility. This program, too, was especially valuable to the poor.

The average Pell grant for low-income students has risen faster than inflation since 1980, but more slowly than the rise in college costs. So grant aid doesn't go nearly as far as it used to. Nor has eligibility been adjusted for inflation. A poor family lucky enough to have its earnings rise with the cost of living will find its kids stuck with smaller and smaller Pell's.

Less money (inflation-adjusted) is being spent on other programs targeted to the poor, according to studies by the College Board. Since 1981, there has been less real spending on Supplemental Educational Opportunity Grants, Special Student Incentive Grants and Perkins Loans (formerly called National Direct Student Loans), which charge only 5 percent interest.

Free grants as a proportion of college aid have been falling since 1982, while reliance on loans has been going up. Borrowing ever larger amounts of money can be far more daunting to the poor than to children of the middle class.

Large numbers of the poor are bucking these trends. They are taking larger loans, going to college later and alternating work and study. But some are falling through the cracks.

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