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Adolescent pregnancy and its relationship to high school dropout

Betts, Sherry Croop, Ph.D.
The University of Arizona, 1987

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ADOLESCENT PREGNANCY AND ITS RELATIONSHIP TO HIGH SCHOOL DROPOUT

by

Sherry Croop Betts

A Dissertation Submitted to the Faculty of the
DIVISION OF EDUCATIONAL FOUNDATIONS AND ADMINISTRATION
WITH A MAJOR IN EDUCATIONAL ADMINISTRATION
In Partial Fulfillment of the Requirements
For the degree of
DOCTOR OF PHILOSOPHY
In the Graduate College
THE UNIVERSITY OF ARIZONA

1987

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As members of the Final Examination Committee, we certify that we have read the dissertation prepared by Sherry Croop Betts entitled Adolescent Pregnancy and Its Relationship To High School Dropout and recommend that it be accepted as fulfilling the dissertation requirement for the Degree of Doctor of Philosophy.

Final approval and acceptance of this dissertation is contingent upon the candidate's submission of the final copy of the dissertation to the Graduate College.

I hereby certify that I have read this dissertation prepared under my direction and recommend that it be accepted as fulfilling the dissertation requirement.

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SIGNED: Mary Croop Betts
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On a more personal level, the contribution of my family is acknowledged with love and pride. My husband, son, daughter, and parents all encouraged me, tolerated me and my work with great patience, and shared my frustration, joy, and enthusiasm.
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ABSTRACT

The purpose of this study was to determine the similarities and differences between pregnant/parenting teens and other young women who drop out of high school. It also sought to determine the characteristics which discriminate between pregnant or parenting teens who continue with school and those who drop out.

A comparison of 33 female high school dropouts with 47 dropouts from an alternative program for pregnant/parenting teens produced a discriminant function which accounted for 99% of the variance between the groups and correctly classified 74% of the subjects by group. Examination of the discriminating variables did not produce the expected variables such as school performance, educational aspirations, and value of education to friends. The results indicated that the two groups of dropouts did not differ in educational background variables and that pregnancy alone did not cause otherwise capable students to drop out of school. It was found that pregnant/parenting dropouts were more likely to be Hispanic, from families who valued education less, and have lower career and college aspirations than other dropouts.
The second comparison of 47 pregnant/parenting students who dropped from the alternative program with 67 who maintained enrollment, produced a discriminant function which accounted for 86% of the variance between groups and correctly predicted group membership for 93% of the subjects. Among the variables which defined this function were grade point average, attendance, importance of education to family and friends, educational aspirations, past drop out, sports activities, more than one child, self-esteem, SES, and being minority. These are typical of the differences between any dropouts and enrolled students regardless of the pregnancy.
CHAPTER ONE

INTRODUCTION

Teen pregnancy and school dropout are issues which trouble school administrators, teachers, parents, and our society at large. Early teenage childbearing is higher in the United States than in any other of 30 developed nations except for Hungary and Romania (Westoff, Calot, & Foster, 1983). Four of every ten females become pregnant before they turn 20 years old. More than one in ten teen women become pregnant each year (Alan Guttmacher Institute, 1981). Teens aged 15 to 19 experienced 500,000 births and teens under 15 experienced nearly 10,000 births in 1983. The pregnancy rate for 15 to 19 year olds in 1982 was 112 per thousand, up from 99 per thousand in 1974 (U.S. House of Representatives, 1985). The consequences of teen pregnancy and parenting include such health problems for mother and baby, as increased risk of toxemia, anemia, bleeding, premature delivery, and low birthweight (Senderowitz & Paxman, 1985). Education and income are also affected. Eight of ten teens who become mothers before they are 18 years old never finish high school. This is twice
the reported dropout rate for women who wait until their twenties to have children (Card & Wise, 1978). More than 50% of all women on welfare had their first child while still a teenager and 25% of all teen mothers receive AFDC payments (Moore, 1979).

Teen parents are one group of students at risk to dropout. Data from the National Center for Education Statistics estimates that at least one-fourth of our nation's teens fail to graduate from high school. Some central city high schools now report dropout rates of 50 and 60 percent (Guthrie & Merchant, 1986). Wehlage and Rutter (1986) comment on the seriousness of this concern:

In general this concern is based on the prediction that serious economic and social consequences will result for those who fail to obtain a high school diploma. Moreover, it is argued that the civic and economic welfare of the nation is dependent on a universally high level of education attainment. Thus for the benefit of both individuals and society, it is assumed that youth should remain in school until high school graduation (p.374).

Statement Of The Problem

Most studies of high school dropout have cited pregnancy as a reason for approximately 25% of the females who dropped out. Reports of teen pregnancy causes and consequences document a 50% or higher dropout rate for pregnant and parenting teens. Dropout prevention efforts
frequently identify characteristics of youth at high risk to leave school and school processes which do not promote school continuation. Teen pregnancy prevention efforts include in-school sex education, health education, classes on decision making and responsibility, and school based clinics. Programs designed to ameliorate the consequences of teen pregnancy are frequently integrated into the comprehensive high school curriculum and housed on the high school campus.

Models of educational attainment and/or school discontinuation either do not address teen pregnancy or classify the pregnancy as a student characteristic which acts as an independent variable in the analysis of factors which explain the variance between school leavers and graduates. A model is needed which explores more directly the relationship between school discontinuation and teen pregnancy.

It would be useful to determine what similarities and differences in personal characteristics and school experiences exist between female students who drop from regular high schools and female students who drop from special programs for pregnant and parenting teens. Additionally, it would be important to determine characteristics which may distinguish pregnant and
parenting school leavers from continuers who are also pregnant or parenting. These two problems were the major focus of this study.

**Purpose Of The Study**

The purpose of this study was to determine the relationships between teen pregnancy and school dropout. Specifically, this study attempted to determine the similarities and differences in personal characteristics and school experiences between pregnant or parenting teens and other young women who dropped out of high school. It also sought to determine the characteristics which discriminated between those pregnant or parenting teens who continued with school and those who dropped out.

**Research Questions**

1. Is there a relationship between teen pregnancy/parenting and school dropout in regard to student demographic characteristics, educational background factors, reproductive history, psychological variables, and/or opportunity factors?

2. Among pregnant/parenting female students, is there a relationship between demographic characteristics, educational background factors, reproductive history, psychological variables, and opportunity factors, and school continuation?
Significance Of The Study

This study provided current empirical data on student characteristics and school processes which are related to high school dropout among females who do and do not have children. It provided information that can be used in further investigations of the causes and correlates of school discontinuation among high school girls. A model of educational attainment and school dropout was tested and refined.

Programs designed to prevent or ameliorate the consequences of both teen pregnancy and school dropout need to be based upon a model. The model needs to define the independent variables and indicate the relationships between and among them and the dependent variables. Studies such as this one contribute to the data available to program planners and policy makers as they fund, plan, and implement programs designed to diminish the dual stigma and consequences of being a teen parent and a school dropout.

Limitations

The study was conducted with the following limitations:

1. The sample was drawn from one urban school district in the southwest.
2. The study was cross-sectional and ex post facto in design. Larger national studies such as the National Longitudinal Survey of Labor Market Experience Youth Cohort and the High School and Beyond Study, have been done which are longitudinal. This study used many of the variables and concepts developed in both of those surveys.

3. The data collected represented only students who enrolled in the target school district during the 1985-86 school year.

4. This study did not attempt to answer questions regarding pregnant and parenting students who dropped from or remained enrolled in the regular high schools.

5. As there is not a standard definition of dropout (Morrow, 1986), this study will use the definition in practice in the school district studied.

Assumptions

For the purposes of this study, the following assumptions were made:

1. School records and student self-report are accurate regarding school enrollment.

2. Trained student interviewers can collect accurate data from subjects.

3. Data from 1985-86 and 1986-87 are typical of the student characteristics and school processes which operate within the chosen school district.
4. Information recorded in the students' cumulative records and retrieved for this study is correct and adequately documented.

**Definition of Terms**

SCHOOL DROPOUT—any student who has withdrawn from school and for whom there is no evidence that she/he has entered another educational setting or completed high school equivalence requirements (General Educational Development Program [GED]).

**Summary**

Concern regarding the causes and consequences of school dropout and teen pregnancy is evident at local, state, and federal levels. Community task forces are often commissioned to address one or the other of these problems. The relationship between the two issues is assumed in many of the programs which are designed to prevent or treat either problem. An empirical study of this relationship will be useful.
CHAPTER TWO

REVIEW OF RELATED LITERATURE

Introduction

The Review of Literature is concerned with three bodies of related literature. The first section is a discussion of the dropout literature with particular attention to the selection of variables used in each study. The second section is concerned with the issue of teen pregnancy and the measures of educational attainment used with this population. The third section addresses relevant models of educational attainment and school dropout. An attempt has been made to apply information from sections one and two to the evaluation of models in section three.

School Dropout

Viewed historically, school dropout is relatively low today. Since 1900, when only about ten percent of the male youth in this country finished high school, the dropout rate steadily declined until the mid to late 1960s when it reached its low point of approximately 12 percent. Since then the rate for early school withdrawal has
increased to the current rate of about 25 percent (Wehlage & Rutter, 1986). Concern about this increase has generated research seeking the causes and correlates of dropping out.

The factors which influence the decision to dropout have been reported for several years in the literature. Descriptions of the personal characteristics of the dropouts emerged in the early studies (Walters & Kranzler, 1970; Howard & Anderson, 1978; Ekstrom, Goertz, Pollack, & Rock, 1986; Barro & Kolstad, 1986; U. S. General Accounting Office, 1986). This body of literature is important for two reasons. Relationships between some personal characteristics and dropout have been consistently identified. Secondly, it has encouraged recent investigators to look beyond the individuals to the educational institutions for explanations of the number of young people who do not complete their high school educations.

Walters and Kranzler reported in 1970 the results of a discriminant analysis study designed to identify and then cross-validate variables or combinations of variables that differentiated dropouts and persisters in the high school classes of 1964 and 1965. This early study found the combination of age at the start of ninth grade, IQ, arithmetic achievement score, and SES to be the best
predictor of dropout or persistence in school. Since this study was reported in 1970, several investigators have refined the list of student characteristics which are related to dropout. In most of the subsequent studies, three of the variables identified by Walters and Kranzler, age at the start of ninth grade, achievement scores, and SES, have been found to be important. As other variables have been added to the list, some investigators have found it useful to categorize the factors related to dropout.

Howard and Anderson's (1978) review of the literature identified two underlying factors associated with dropout--family history and academic difficulties. All of the studies that they reviewed found SES to be the most important factor in the family history. Additionally, Howard and Anderson (1978) concluded that:

a student's decision to leave school before graduation is not an isolated decision, but one based on many interactive factors, both personal and academic...These factors, often relatively easy to identify, include family status, socioeconomic status, parents' level of education, siblings' level of education, parents' value of education, parents' occupational status, student's motivation and aspiration, social contacts, mental and physical health, material possessions such as a car, participation in school and community activities, failure in one or more grades, reading and arithmetic progress, attendance in several schools, irregular school attendance and teacher's expectations and personality rating of students. (p.229)
The intent of the researchers' focus on personal characteristics was to establish early identification of at-risk youth, so help could be given early enough to prevent them from dropping out. Howard and Anderson's (1978) literature review was intended to assist the early identification of potential school dropouts. They noted a well defined path leading to the act of dropping out, defined by several common factors in family histories and the presence of academic difficulties. Low SES socialization does not prepare youth for middle class schools and teachers; so success was more difficult to achieve. Children chose peer influences to protect or enhance self-identity, and high risk students were thus more likely to associate largely with other potential dropouts.

Ekstrom et al. (1986) used the High School and Beyond sophomore cohort data from 1980 and 1982 to describe students who drop out, as well as to answer other questions. Descriptive analysis showed that dropouts differed from non-dropouts in that they were more likely to be lower SES, minority, male, and from the South or West. They also had fewer study aids in the home, and mothers with less education and lower educational aspirations for their children. Their mothers were also more likely to be working outside of the home. School-related differences
showed dropouts had lower grades and achievement scores, more behavior problems, absenteeism, and tardies. Outside of school, dropouts spent less time reading and talking to parents, and more time out of the house and working for money. The most frequent reasons given by all students for dropping out were "did not like school" (33%) and "poor grades" (33%). For males, the next most cited reason was "offered a job" and "chose to work" (27%). For females, the next most cited reasons were "marriage" (31%) and "pregnancy" (23%).

Barro and Kolstad (1986) have conducted a very sophisticated analysis of the High School and Beyond 1980 sophomore cohort dropouts. Gross rates indicated that minorities and males have an increased likelihood of dropout. When controls for SES and other family background factors were introduced, the entire difference in gross rates between blacks and whites, and much of the difference between Hispanics and whites was accounted for. Sensitivity of dropout rates to SES varied sharply among race and sex groups. Clear and consistent relationships to dropout across all race and sex groups were found for achievement test scores, grades, retentions, and age at start of the ninth grade. The lowest quartile in achievement scores were eight times more likely to dropout than the highest quartile. Retentions double the likelihood of dropout.
These school factors cannot be manipulated, and Barro and Kolstad warn that these are educational performance indicators that cannot be treated as independent variables. They also note that the school factors have a stronger association with dropout for females than for males. Other factors associated with dropout include working, marriage, childbirth, discipline problems, and suspensions. A married student has a 60 percent chance of dropout, a teen mother has a 50 percent chance, and a married woman with a child has a 70 to 75 percent chance of dropout.

... it is clear that for students still attending high school, getting married or having a child is one of the strongest possible signals that dropping out may be imminent (Barro & Kolstad, 1986, p.30).

The United States General Accounting Office (U. S. GAO) (1986) produced a briefing report to the Congress on the extent and nature of the dropout problem. Its review of recent research produced a similar list of factors which appear to be associated with increased chances of dropout. These factors are being Hispanic or black, economically and educationally disadvantaged, two or more years behind in school, pregnant, or the child of a father who dropped out.

Recent investigations have emphasized the importance of the school's role in allowing or encouraging dropout (Fine, 1986; Wehlage and Rutter, 1986; Strother, 1986; Hammack, 1986). Programs have been developed and
implemented which are based upon the assumption that changes in schools can make a difference in the way students respond, even students who have been identified as potential dropouts (Champeau, 1983; Ross, 1983; Hamilton, 1986; Mann, 1986; McDill, Natriello, & Pallas, 1986).

Fine (1986) accepted the findings of previous investigators as descriptive of who drops out, but approached the problem through an ethnographic study of one high school. She identified four types of circumstances under which students drop out of high school: with a critique of their schooling and labor market potential, due to family social and health needs which make school irrelevant or disruptive, feelings of uselessness or inability to perform, and expulsions or being pushed out. Fine (1986) made the point that looking for individual explanations of dropout is inadequate and blames the victim, "Looking for structural and social explanations of high dropout rates is obviously more fruitful" (p. 468).

The structural conditions which face a comprehensive urban high school today include low skill students with reduced academic possibilities, lower fiscal allocations with no incentive to reduce class size or to bring back truants and dropouts, and disempowered teachers, staffs, and students. The social conditions include teen pregnancy.
It is no longer legal to expel a pregnant student from public school. The experience of pregnancy and/or the first year of child rearing, however, is usually sufficient to prompt "voluntary exit." While there is controversy over whether pregnancy "causes" dropping out (which it obviously does in some cases) or dropping out precedes pregnancy . . . , the correlation and consequences are staggering (Fine, 1986, p.404-405).

Wehlage and Rutter (1986) also looked for other explanations of dropout than a list of personal characteristics. They suggested that past studies viewed dropout as social deviance and "an explanation of this deviant action is sought in the characteristics distinctive to the dropout group" (p. 375). The focus on the relatively fixed attributes of students may give schools an excuse for lack of success with the dropouts. Noting that low SES and poor school performance leading to low grades are associated with dropout, the authors concluded that it is not clear whether measured characteristics such as low aspirations, weak sociability, negative attitudes toward school, low self-esteem, and an external locus of control are brought to the school or produced by the school experiences. Again, the 1980 sophomore cohort of the High School and Beyond study was used as the sample. Multivariate discriminant analysis was used on the 1982
follow-up data to differentiate between dropouts, persisters, and college bound youth. Two functions were identified which predicted group membership. The academic function, which included expected school attainment, achievement test scores, SES, and grades, was a powerful predictor of group membership. The social context of schooling function differentiated the dropout from academically similar peers in terms of high truancy, discipline problems, lateness, and number of hours worked. Further study of the dropout group found dropouts increased in self esteem and moved to a more internal locus of control after leaving school. The stated implications of this study are:

If the intent of social policy is to reduce the number of dropouts, then policies and practices of schools will need to respond to this conflict with and estrangement from the institution arising out of the social and family background of students. Certainly public schooling in a democratic society is obligated to respond constructively to children from all backgrounds and social conditions. It may be that some kinds of children are more difficult to teach than others, but the school has no less of a mandate to do its best to provide all the schooling such children can profitably use. This is precisely the mandate that has been accepted by the schools for educating handicapped children (1982, p.381).

Schools and students interact to produce dropouts. The authors believe that schools have a chance and a responsibility to respond to those students at risk.
Strother (1986) echoes this concern with a strong statement to the effect that characteristics of dropouts are known but "few studies have focused on students who displayed the same characteristics but who graduated from high school nonetheless" (p.326). Hammack (1986) arrived at a similar conclusion in his comparison of dropout rates among six cities. He found similar rankings of schools by dropout rates and the proportion of at-risk students they serve, but there are some schools that do better or worse than would be expected, "Clearly, these data, provide room for optimism about the possibilities of interventions at the school level that may lower the dropout rates" (p.336).

Several studies made recommendations regarding the prevention of dropout or the retrieval of dropouts. Champeau (1983) cited the qualitative evaluation of a detailed one-to-one counseling program. Most participating students found more reasons to remain in school, began to feel that someone cared about them, and perhaps for the first time began to care more about themselves. In a similar program, Ross (1983) paired volunteer teachers with at-risk eighth grade students the summer before they entered high school. The at-risk students had records of truancy, low participation in school activities, low grades, difficulty communicating
with teachers and peers, and little interest in classroom work. Compared to a control group, Ross found that grades increased, truancy decreased, and less incidence of dropout among those youth in the program. These two programs are examples of prevention programs. Hamilton (1986) identified four characteristics which most successful programs share. They separate potential dropouts from other students. Strong vocational education components are included. Out of classroom learning is utilized. They are intense with small enrollments, low student to teacher ratios, and increased counseling. The U. S. GAO (1986) Advisory Panel emphasized the need for similar programs which include basic skills training, improved links between education, employment, and training, and multicomponent services which include social services, labor market information, and education.

Mann (1986) criticized current efforts to solve the problem of dropout. He suggested that there are multiple causes of dropout and that the solution must be complex. There have been many approaches to the solution which have not been well documented or evaluated. Mann called for a standard definition of dropout and coordination among programs and public sector agencies. There are currently no data linking programs to outcomes, but a start in the right direction has been made by the youth employment training
programs which document "positive terminations." The public sector has a reason to become involved in such endeavors because dropouts will earn 237 billion dollars less over their lifetimes than will high school graduates. State and local governments will collect 71 billion dollars less in taxes.

Mann (1986) summarized what appears to work as a place to start. First, make elementary school more successful for all students to prevent school failure and promote mastery of basic skills. Second, link learning to earning, school completion to paid employment. Third, reduce the student to teacher ratio and train adults to care and relate on a personal level. Fourth, use computers for instructional management and student management to improve basic skills, positive attitudes, and job performance skills. Lastly, build coalitions between schools and employment/training organizations and businesses.

The knowledge of characteristics of dropouts and programs which may affect the dropout rate has also been used to examine the potential influence of school reform policies on the high school dropout rate. McDill, Natriello, and Pallas (1986) addressed this issue. They urged those involved in school reform to consider family
and economic reasons for dropping out of school. Examples of two ways schools can deal with reasons for dropping out not directly related to school are programs for adolescent mothers and school-work programs. Such programs may indeed create environments in which youth can succeed even if they would have dropped out without the pregnancy or need to work. The authors suggested a research agenda for the future which includes the improvement of knowledge of the ways in which nonschool responsibilities, such as childbearing, devolve upon secondary school students.

The investigations reported here indicate that the following student characteristics and school processes are related to school dropout: ethnicity, SES, retentions, math and reading achievement scores, grades, the level of education of both parents and friends, the value of education of both parents and friends, student's educational motivation and aspiration, student participation in school activities, enrollment at several different schools, absenteeism, behavior problems as evidenced by referrals to the office and suspensions, low self-esteem, an external locus of control, pregnancy, and marriage. These variables must be measured, controlled, or explained in the design of future studies of school dropout. Models examined in the last section of this
chapter will be evaluated to determine if these variables are included.

**Teen Pregnancy**

Resnick and Blum (1986) categorized past paradigms of analysis of the problem and incidence of teen pregnancy. Early literature considered sexual activity among adolescents as socially deviant behavior committed by alienated, psycho-pathological young people. The focus then shifted to a description of the sociodemographic characteristics of pregnant teens, followed by a social-psychological focus on adolescent attitudes which help to explain sexual decision making. The most recent research has tried to identify the psychological or personality traits which describe the pregnant teen. Resnick and Blum suggest that another way to conceptualize the incidence of teen pregnancy is within the context of normal adolescent development. They studied the outcomes of sexual decision making in four groups: contraceptors, aborters, pregnant teens, and teen moms. Five areas of development were measured: ego development, future time perspective, sex role identity, locus of control, and social competence. Teen mothers were found to be least developed in future time perspective as well as having external locuses of control. They noted that "... these young women tended
not to have high educational, career, or other competing aspirations, either currently or prior to their pregnancies" (p. 304).

Furstenberg's (1976) study was one of the first to explore why and how teen pregnancy under 18 years of age jeopardizes the life options of young mothers and their children. Until that time, "systematic research on the consequences of adolescent parenthood (was) virtually nonexistent" (p.148). Four hundred teen mothers and 361 classmates were included in a six year longitudinal study. Regarding education, Furstenberg found that 70 percent of the mothers resumed school after delivery, 50 percent completed high school, others were close to graduating at the five year follow-up, and a small minority had gone past high school. A large number of the mothers failed to reach their expected educational goals. Compared to their classmates, the impact of the pregnancy on educational attainment was substantial.

Young mothers were not as a group conspicuously incompetent or disaffected students. Most enjoyed school and did moderately well; 75 percent were grade/age appropriate, and most wanted to return to school after delivery. Most who dropped out had been marginal students before the pregnancy and may have dropped out anyway, but almost half the dropouts were at least moderately able
students and were committed to obtaining a high school diploma. Ambition, academic performance, and family expectations all were highly predictive of school continuation.

These results are not inconsistent with the variables which differentiate between dropouts and persisters in the dropout literature and are similar to those reported by Mosena (1985). In an analysis of young mothers on AFDC in Cook County between 1981 and 1984, Mosena identified characteristics which made it more or less likely that a girl would graduate or dropout of school and/or have a second child. The group most at risk of dropping out and not finishing high school were Hispanic, younger, had a second child, not in school when they first became pregnant, had lower educational aspirations, had not held a job since the first pregnancy, had moved out of the parental household, did not have help with child care, and had previous welfare experience.

Ascher (1985) summarized and reviewed the psycho-social and psychological-personality trait studies often done since 1980. Similarities between the characteristics of teen mothers and other "problem groups" such as school dropouts, unemployed youth, and delinquent youth were evaluated. All groups shared traits of low self-esteem, low aspirations, poor academic achievement, low SES, and poor
parent-child relationships. Ascher suggested that solutions to the problem of teen pregnancy may be interwoven with solutions to the other devastating problems which confront disadvantaged families. Pressure on pregnant students to dropout was hard to pinpoint because students tended to decide early, before the pregnancy was visible, to dropout, and did not involve the school personnel in the decision. Ascher (1985) concluded,

First, the research suggests the attraction of parenting is inversely proportionate to the possibility of other options, particularly schooling and work. Teenagers who dropout are more likely to become pregnant than those who remain in school, and pregnant adolescents who remain in school or return after delivery are less likely to become pregnant a second time. Thus a first step toward pregnancy prevention is, in fact, dropout prevention (p.21).

The study of the relationship between early childbearing and educational attainment has found consistently that the younger the woman when she has her first child, the fewer years of schooling she will complete (Moore & Waite, 1977; Card & Wise, 1977; Waite & Moore, 1978). What is more, the educational disadvantage of teen mothers increased with time, but for blacks, there were fewer negative effects of teen pregnancy. The educational decrement caused by teen pregnancy was fifty percent that of whites for blacks. Additionally, Moore (1986) completed a study of the children of teen parents to find that among
whites, the teen mother's own lower level of schooling was the most crucial predictor of the child's poor school performance. Among blacks and whites, if the the mother was behind in school or had dropped out, the children did poorly on tests of cognitive ability and held low educational expectations for themselves.

Mott and Maxwell (1981) found a dramatic increase over the decade 1968 to 1979 in the proportion of pregnant and parenting teens who remained in school; from 20 percent in 1968 to 42 percent in 1979. This study used the National Longitudinal Surveys of Work Experience of Young Women and Youth to examine the relationship between early childbearing and school leaving. The increase in the proportion who remained in school was attributed to a change in the law. Title IX of the 1972 Educational Amendment clarified the right of pregnant students to attend public schools. No attempt was made to examine the effect of support services or alternative programs, or the change in societal values which made teen pregnancy less of a stigma. The impact of teen pregnancy and school dropout on the economic future of the young woman was found to be profound. "The high school dropout with children is in the poorest position with regard to improving her employability over the next few years." (Mott & Maxwell, 1981, p. 292).
Belsches-Simmons (1985) examined the legal considerations of teen pregnancy and schooling and came to a similar conclusion:

Finally, a high school education has become essential for obtaining even the most menial jobs. Denying a quality education to children who have already demonstrated a need to earn a living by virtue of their status as parents, while arguably protecting the state interest in a "moral" environment in the schools, creates and perpetuates ignorance and poverty (p.8).

The link between poverty, teen pregnancy and parenting, and school dropout is frequently cited. The president of the Catholic University of America, William Byron, wrote in an essay on the difference schooling can make between poverty and power that teen mothers should be encouraged to see that schooling can make the difference between poverty and economic security for their children (Byron, 1986). Singh (1986) completed an interstate analysis of adolescent pregnancy in the United States and found one of the common factors in states with high teen pregnancy rates was high proportions of teens dropping out of school.

The Children's Defense Fund (1986) report on teen pregnancy prevention stated, "... it is clear that the teen pregnancy problem often is linked to a youth's limited education and employment opportunities and resulting low expectations for the future" (p. 6). The same report cited a study of the National Labor Survey
which found that 16 to 17 year old girls who were in the bottom quintile on basic skills tests were five times more likely to be adolescent mothers than girls who had average scores. Also, poor youths were three to four times more likely to dropout of school than those from more affluent families. "Pregnancy or parenthood often is the final factor prompting many young men and women who already were lagging behind in school to drop out" (Children's Defense Fund, 1986, p. 6). Jones, Forrest, Goldman, Henshaw, Lincoln, Rosoff, Westoff, and Wulf (1985) found evidence to the contrary in their comparative analysis of teen pregnancy and childbearing in 37 developed nations. They found that teen pregnancy was higher in the United States than in most developed nations, but that teen unemployment appeared to be at least as serious a problem in all countries studied, and that American teens had more, or at least as much, education as those in most of the countries studied.

Hanson, Ginsburg, and Myers (1987) used the High School and Beyond sophomore cohort data to examine the role of responsibility and knowledge in the occurrence of teen pregnancy. They found that when teens and their parents believed in values that stressed responsibility and had high educational expectations, the teenagers' chances of pregnancy were significantly reduced. Teen girls who had
high educational expectations and an internal locus of control were 23 percent less likely to have a child; teens whose parents who showed concern over their daughters' whereabouts, grades, and activities were 36 percent less likely to become pregnant; and girls whose parents had high educational expectations were 42 percent less likely to give birth. The dropout literature indicates that similar predictions would hold true if the words "less likely to become pregnant" were substituted for "less likely to dropout of school." 

None of the literature has examined the differences between pregnant and parenting teens who attended alternative programs designed to provide support and help them stay in school and pregnant and parenting teens who either were not identified to the school as in need of service, chose not to participate, or did not have access to such support service. The U. S. General Accounting Office (1986) completed a report to the Congress on the effects of programs on educational and economic outcomes of pregnant and parenting teens. Many current programs were reviewed but few have had rigorous evaluation designs. Analysis of model programs found that teen mothers enrolled in multiservice programs were more likely to return to school after delivery and to complete more years of school
than nonparticipants, but there was no strong evidence of improved graduation rates.

Soloway and McGee (1985) called for special assistance for parenting teens to help them complete their education, train for jobs, secure child care, and provide adequately for their children. "Too often teenage mothers remain out-of-school or on welfare solely because we have made it too difficult for them to do otherwise" (p. 6). Schmidt (1985) described a supportive high school child care and parenting program designed to help teen parents stay in school. Ryan (1982) cited the lack of child care and differences between teen mothers and their peers as reasons for high dropout and as the rationale for the development of alternative comprehensive schools. This need may also be inferred from Moore's (1983) statement regarding federal programs and policies relevant to pregnant or parenting secondary students:

Continued school enrollment should receive the highest priority for teenage mothers, both because of the general value of an education for living and parenting and because a high school diploma is required for many entry level positions and for career advancement (p. 16).

The literature on teen pregnancy and parenting identifies several variables which have an impact on the incidence of teen pregnancy and on the educational attainment of the young women in this group. The following
variables must be included in a comprehensive study of the relationship between school dropout and teen pregnancy and parenting: future time perspective, locus of control, self-esteem, educational and career aspirations, academic performance, achievement scores, family educational expectations, ethnicity, SES, living situation, number of children, availability of child care, age at first birth, and school dropout. Models which attempt to explain the relationship between school dropout and teen pregnancy will address these issues.

Relevant Models of Educational Attainment and School Dropout

The relationship between educational attainment and school dropout has been addressed in the literature. Models have been developed to explain the relationships among and between the characteristics of students and schools (Natriello, Pallas, & McDill, 1986; Ekstrom, Goertz, Pollack, & Rock, Kolstad & Owings, 1986). Concern regarding the consequences of teen pregnancy has generated models which explain the relationships between and among the characteristics of pregnant and parenting teens and the antecedents of dropout (Moore & Waite, 1977; Waite & Moore, 1978; Darabi, 1979).

Natriello et al. (1986) suggest a pattern of reciprocal relationships between the student
characteristics and the process aspects of their school environments. This relationship is presented in Figure 1.

Student characteristics of dropouts should be studied for several reasons. If the contribution of other factors to the dropout problem is to be studied, the effects of student background characteristics needs to be controlled. Secondly, to understand what schools are doing that may exacerbate the problem and what schools can do to ameliorate the problem requires carefully assembled information on the backgrounds of the students who eventually dropout. School processes are included to explain how school practices affect student behaviors, particularly attendance and discipline policies.

Wehlage and Rutter (1986) made a strong case for a model such as the one presented by Natriello et al. They argued that the focus on relatively fixed attributes of students may give schools an excuse for lack of success with dropouts. An understanding of the institutional character of schools and whether it affects the marginal student in a negative manner is more likely to improve chances for success. These are both issues that need to be further explored, and certainly raise questions
Figure 1. Reciprocal relationships between student characteristics and school processes (Natriello et al., 1986).
regarding the education of adolescent parents. Is the pregnancy and/or parenthood a student characteristic? Many of the studies reported in this chapter treat it as such. Moore and Waite (1977) used only ten variables or characteristics in their model of the educational attainment of young women who were and were not mothers. The variables used were: mother's and father's education, father's occupation, family income, family size, intact family, region of residence, race, aptitude or ability, and encouragement from teachers and peers. The factors which were identified as most important in educational attainment were the characteristics of the family for teen mothers and motivation and encouragement from others for non-mothers.

Perhaps pregnancy should appear as a consequence of dropping out or even as a product of other personal characteristics and school processes which lead to first a pregnancy and then the dropout. Wehlage and Rutter (1986) ask, "How is it that child care is more attractive than schooling or that schools are unable to entice these young mothers back into the educational stream?" (p. 376). Perhaps the school processes which are designed to serve the adolescent parent need to be enumerated and evaluated. Until these questions are answered, Natriello's model does not provide an adequate explanation of the relationship between school dropout and teen pregnancy.
Ekstrom et al. (1986) used path analysis to relate many factors in the decision to stay in or dropout of school. This path model is presented in Figure 2.

This path model is similar to Natriello's in that it accounts for the influence of both personal characteristics and school processes. The demographic variables are given the first consideration and affect all of the succeeding parts of the model. The family educational support system is the next factor and influences school performance, disciplinary behaviors, and the decision to stay in or dropout of school. Adolescent pregnancy may again be considered a demographic variable, a consequence of dropping out, or perhaps, an outcome parallel to the decision to drop out or stay in. Ekstrom concluded that three major types of programs are needed: Programs to help pregnant teenagers remain in school, programs to help youth with economic needs combine work and education, and programs directed toward students who perform poorly because they are dissatisfied with the school environment. Without more information, this model does not present a clear explanation of the relationship between teen pregnancy and school dropout. Special programs such as those suggested may influence the decision to dropout by increasing school performance and decreasing disciplinary
Figure 2. Path model of factors which affect the decision to stay in or drop out of school (Ekstrom et al., 1986).
behaviors, but will there also be enough support to make up for the influence of demographic variables and augment the educational support system available from the family? The influence of these programs is not clear in the path model.

Kolstad and Owings (1986) presented two views of high school dropouts who return to school. One view is based upon the educational attainment model which examines the individual's aspirations. Aspirations may help overcome limits on the level of school eventually attained imposed by SES and ability. Social-psychological processes are examined and social influences by parents, teachers, and peers are valued. Using the educational attainment model, one would expect students who should not have dropped out based on their background and ability, to be more likely to return than those whose actions fit their resources and abilities. Waite and Moore (1978) found that young mothers were less able than those who avoided early childbearing to convert even an advantageous family background, support from others, ability, and motivation into education for themselves.

The second view is based on the notion of human capital or the investment aspect of education. Skills make
the individual more productive, but when in the economic life cycle does investment outweigh the gains? This view would predict that wage disadvantages experienced by high school dropouts compared to graduates ought to bring about a return of dropouts to the educational system. Interesting sex differences were found in Kolstad and Owings' study. As predicted by the educational attainment model, those students still in school as sophomores who expected to go to college but dropped out of high school, were more likely to return and complete high school than those dropouts who had no further educational plans. Among those who had junior college or vocational/technical school aspirations, male dropouts were more likely to return than female dropouts. Also, although there were more male dropouts than female, among minorities, the males were more likely to return and finish than the females. This was interpreted as an indication that homemaking and childrearing reduce the alternatives for changing career choices among female dropouts, thus hampering the effect of the human capital model.

Darabi (1979) incorporated many of the elements of the preceding models in a theoretical framework of the determinants of school return after the birth of a child, represented in Figure 3.
Figure 3. Determinants of school return after the birth of a child (Darabi, 1979).
Darabi presented an inter-disciplinary model of the educational consequences of teen parenting to account for the timing of dropout, reasons for leaving school, and the perceived or actual barriers to continuation. Pregnancy may be used as an excuse to dropout, cause problems in role transition, create societal pressures for full time motherhood over personal development, or result in exclusionary school policies. The literature on teen pregnancy does not address questions about the dropout's knowledge of opportunities to return or perceived barriers. The pregnancy and/or parenthood are assumed to be the barriers. Darabi defined the dependent variable in her study as any formal high school (or equivalency study) return within four years after childbirth. The independent and intervening variables for each part of the model were:

**Demographic Characteristics**
- SES
- Ethnicity
- Place of birth
- Family size
- Birth order
- Religion

**Educational Background Factors**
- Educational attainment before pregnancy
- Educational aspirations
- Career aspirations
- Academic performance
- Attitude toward school
- Significant other influence
Reproductive History
- Age at first birth
- Marital status
- Subsequent pregnancies
- Desire for children

Psychological Variables
- Locus of control
- Sex role attitudes

Opportunity Factors
- Living situation
- Income related variables
- Child care availability
- Knowledge of opportunity to return
- Reasons for return or not
- School effects (Darabi, 1979).

This model is more comprehensive than those preceding, and with some adjustments, may be used to conceptualize the relationship between teen pregnancy and school dropout. The pregnancy and its consequences, such as lack of child care, income, or family support, are only partially explained in the model. This model assumes that the first birth has already occurred, and the student is about to decide whether to return to school or dropout. Many students dropout before the birth. This model would seem to be equally appropriate for an explanation at any time during the course of the pregnancy or afterward. The dependent variable then becomes the decision to dropout or stay in school. Student characteristics found important in the dropout literature are measured, but school processes may not be adequately addressed. School policies for
attendance, truancy, tardies, discipline referrals, suspensions, and participation in extracurricular activities, as well as other school functions need to be added to the list of variables under the educational background factor. An underdeveloped future time perspective (Resnick & Blum, 1986) has been found to differentiate teen mothers from others and would be a useful measure of the psychological factor, as would self-esteem. A revised list of independent and intervening variables for each part of the model follows:

**Demographic Characteristics**

- SES
- Ethnicity

**Educational Background Factors**

- Educational attainment before pregnancy (retentions, grade level)
- Educational aspirations
- Career aspirations
- Academic performance (grades and achievement scores)
- Attitude toward school
- Significant other (parents and friends) influences
- School activities
- Attendance, enrollment at several schools
- Referrals for discipline and suspensions
Reproductive History
  Age at first birth
  Marital status
  Subsequent pregnancies

Psychological Variables
  Locus of control
  Self-esteem
  Future time perspective

Opportunity Factors
  Living situation
  Child care availability
  Knowledge of opportunity to return
  Reasons for return or not

Analysis of results of data collected to test this suggested model could include a discussion of the educational attainment and human capital views proposed by Kolstad and Owings. The social influences of significant others may be important to teen parents as they decide what to do about school. The opportunity factors may influence the investment aspect of education for teen parents. These are useful concepts in the theoretical discussion that a test of this model will afford.
CHAPTER THREE

RESEARCH METHODOLOGY

Introduction
Darabi (1979) has suggested a pattern of reciprocal relationships among demographic characteristics, educational background factors, reproductive history, psychological variables, and opportunity factors as an interdisciplinary model of the educational consequences of teen pregnancy and parenting. This study attempted to clarify the influence of adolescent pregnancy and parenting in such a model.

Sample
The population still living in the city (n=128) of the female students enrolled in an alternative high school for adolescent parents in one urban school district during the 1985-1986 school year was used. The alternative program offers all required classes for junior and senior high school in addition to some electives concerning prenatal health, parenting, adoption, and related topics. Counseling and social services are available on site;
medical services are provided through referrals. Additional support services offered at the program include child care, vocational assessment, job development, and career planning.

Also, a stratified random sample from the population of all students who dropped out of the high schools in the same district during the 1985-86 school year was drawn. The total number of dropouts was 1,984, including 1,117 males and 867 females. The sample of 100 represented the distribution of the total dropout population in regard to ethnicity, age, grade, sex, and home/school. This study will use the data from the females drawn in this sample (n=44). This portion of the study was done by the district's research and evaluation department in conjunction with the dropout coordinator and a district/citizen research subcommittee of the dropout committee. This investigator was a member of that subcommittee.

There were almost certainly pregnant and parenting students who dropped from the regular high schools who were not identified to the school as pregnant or parenting before this time. There were also pregnant and parenting students who remained in their home schools. This study did not attempt to answer questions regarding those populations.
Procedures

Data was collected by student interviewers who met personally or by telephone with the student subjects to complete a structured interview questionnaire. Also, trained data collectors used district student records to complete a form designed to summarize school histories.

Student interviewers were recommended by the home school counselors, then recruited, interviewed, and selected by the subcommittee. Fifteen students from the regular high schools and six students from the alternative program were chosen. They received training during three sessions over a three week period. They were told that the purpose of the study was to gather information about who dropped out and why so the district could make changes in the schools to help students complete high school. They were also told that another purpose was early identification of potential dropouts to prevent dropping out and provide help. The training addressed communication skills, including listening, writing, and speaking, cultural and individual differences and sensitivities, how to set an appointment, how to deal with problem situations, and interviewing skills. The instruments were reviewed question by question and a sample interview was modeled. Between sessions, student interviewers were required to
practice at least one interview and bring the completed form to the next session. At the second and third sessions, the interview questionnaires were used in small group role plays in which each student was asked to complete a form as one student did the interview. Staff observed and stopped the interviews to instruct the interviewers to probe for information or ask the group to compare written comments to see if they were the same. Each student interviewer was given the name, work phone and home phone of a "coach", a subcommittee member who was available to answer questions or help with judgment calls.

Letters were sent to the dropouts from the regular high schools in the sample from the district dropout coordinator. The letters asked the former students to be a part of the survey and indicated that a phone call would confirm their participation. A phone call was then made by district staff to get the permission of the individual to give his/her name and phone number to a student interviewer. Participation was voluntary and at the time of the interview the student interviewer again stated that the information would be confidential and the interviewee could refuse to answer any question or questions. Student interviewers then called the subject and arranged a time and place, usually a school or public place such as a
library or fast food restaurant, where they could meet for the interview. All interviews were done in private, that is at a separate table or space away from friends or family. Interviews were designed to last between 25 and 35 minutes. The "coaches" arranged to pick up the first completed questionnaires to spot check for completeness and give any help necessary.

The pregnant and parenting students from the alternative program were contacted by phone or by letter if they had no phone. The student interviewers for this part of the sample were also from the alternative program. The methods used were the same as above.

Staff and graduate students were trained to collect data from the district database and from student cumulative folders. Two training sessions were held at a middle school and a high school so actual records could be used and results compared. This data was collected after the interview was complete to avoid collection of information on students who chose not to participate.

**Instruments**

Independent variables derived from the literature were used to construct four data collection instruments. The first two instruments were survey questionnaires, one for dropouts and one for currently enrolled students,
administered by trained students to the sample. The same questionnaires were administered to the pregnant and parenting students, with the addition of the Nowicki and Strickland (1973) Locus of Control Scale, the Rosenberg (1965) Self-esteem Scale, Stein's Future Events Scale (1968), two questions regarding the effect on education of the pregnancy, and four questions used in the High School and Beyond Survey to determine SES. The third instrument was a form used by trained data collectors to gather information from school records and cumulative student records. A similar form for gathering information from school records at the alternative program was developed to assess educational progress since the pregnancy or birth. The list of independent variables and the instruments appear in Table 1. (Copies of the instruments are attached in Appendix A.)

Analysis of Data

Multivariate analysis was necessary to answer research questions one and two: Is there a relationship between teen pregnancy/parenting and school dropout in regard to student demographic characteristics, educational background factors, reproductive history, psychological variables, and/or opportunity factors? Among pregnant/parenting female students, is there a relationship
between demographic characteristics, educational background factors, reproductive history, psychological variables, and opportunity factors, and school continuation?

Discriminant analysis was used. Two or more mutually exclusive groups can be distinguished with this technique, based on the collection of independent variables. A linear combination of the variables such as SES, ethnicity, school attendance, age at first birth and so on, were analyzed to distinguish two groups. For research question one the groups were those dropouts who had children and those who did not. For research question two the groups were those who had dropped out of school and those who had not. The available data were the values of the variables for cases whose group membership was known. The variables that were the best predictors of group membership were identified and used to classify students in one group or the other. The percentage of correct classifications were ascertained by comparing known group with predicted group membership. This information can then be used to develop a procedure for predicting group membership for new cases whose group is undetermined (Norusis, 1986).
Table 1. Method of data collection.

<table>
<thead>
<tr>
<th>Variable List</th>
<th>Enrolled Questionnaire</th>
<th>Dropout Questionnaire</th>
<th>Cum Record Form</th>
<th>Alt School Form</th>
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<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td><strong>Opportunity Factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Living situation</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Child care availability</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Knowledge of opportunity to return</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Reasons for return or not</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
CHAPTER FOUR

RESULTS

Participants in the Study

Data were collected from a total of 147 young women. Table 2 summarizes the number of subjects in each group. Forty female dropouts from the regular high schools were interviewed. Seven of these subjects had at least one child and were therefore not included in the analysis to address research question one. One hundred seven of the 128 females enrolled in the alternative program for pregnant and parenting teens were interviewed. This represented 84 percent of the total population, including 47 of 61 (77%) females who dropped out and 60 of 67 (90%) females who did not dropout. Of the 21 females in the population who did not participate, two refused and 19 were not located.

Data were collected from school records on all subjects who were interviewed. Two variables, disciplinary referrals and suspensions were dropped from the study because individual student data were not available at most high schools.
Table 2. Study participants.

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Participation rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dropout from regular high school</td>
<td>40</td>
<td>82.5%</td>
</tr>
<tr>
<td>Pregnant/parenting, alternative program:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dropout</td>
<td>61</td>
<td>77.0%</td>
</tr>
<tr>
<td>Enrolled student</td>
<td>67</td>
<td>89.6%</td>
</tr>
</tbody>
</table>

**Summary of Statistical Analysis**

Discriminant analysis was used to determine the extent to which the independent variables differentiated between two groups. Based on a collection of variables, such as grade point average, ethnicity, participation in school activities, and others, this technique can be used to distinguish between two mutually exclusive groups, such as dropouts from regular high schools and from the alternative program. The available data are the variables for subjects whose group membership is known; that is, subjects who have dropped out of one of these types of schools. The variables that are important for distinguishing between groups are identified and can be used to develop a procedure to predict group membership for new subjects whose group membership is not known. Linear
combinations of the independent variables are formed and produce a score for each subject which is used to classify them into one of the two groups.

The score represents information contained in multiple independent variables. A weighted average of variables such as participation in fine arts activities, importance of education to family, and so on, is found such that the individual subject scores distinguish other high school dropouts from pregnant/parenting dropouts. The weights are estimated so that they result in the best separation between groups. The linear discriminant equation is: \[ D = B_0 + B_1 X_1 + B_2 X_2 + \ldots + B_p X_p \]

The \( X_i \)'s are the values of the independent variables and the \( B_i \)'s are coefficients estimated from the data. The two groups must differ in their \( D \) values if the function is to distinguish between them. Therefore, the coefficients (\( B_i \)'s) are chosen so that the values of \( D \) differ as much as possible between the groups. The ratio of between the groups sum of squares to within groups sum of squares is maximized. Any other linear combination will have a smaller ratio (Norusis, 1986).

The two purposes of discriminant analysis, then, are to determine which combination of the independent variables best explains the variance between two or more groups, and to apply that equation to new data to predict group
membership. This investigation is limited to the first purpose. Future studies may apply the results of this study to new data to test the power of the prediction on new cases.

Research Question One

The first analysis defined the two groups as pregnant/parenting dropouts from the alternative program and non-pregnant/parenting dropouts from the regular high schools. Table 3 presents the classification results of the function defined to differentiate between these two groups. The combination of independent variables identified by this function was used to correctly classify 73.75% of the cases by group. Twenty-one percent of the dropouts and 30% of the pregnant/parenting dropouts were misclassified. Chance alone would predict 41% and 59% respectively, misclassified.

Table 3. Classification results--dropouts and pregnant/parenting dropouts.

<table>
<thead>
<tr>
<th>Actual Group</th>
<th>N</th>
<th>Predicted Group Membership</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>1 Dropout</td>
<td>33</td>
<td>78.8%</td>
</tr>
<tr>
<td>2 Pregnant/Parenting</td>
<td>47</td>
<td>29.8%</td>
</tr>
</tbody>
</table>

Percent of cases correctly classified: 73.75%
Figure 4 presents the histogram of the combined distribution of the scores for the two groups. The amount of overlap and separation between the two groups is evident. The group means are indicated as class centroids.

Group 1 Dropouts
Group 2 Pregnant/parenting dropouts

Figure 4. Dropout and pregnant/parenting dropout stacked histogram. Canonical Discriminant Function 1.
Table 4 lists the Function 1 independent variables and coefficients which explain more than 99 percent of the variance (Wilks' Lambda=.0002) between groups. These variables were obtained by using the Wilks stepwise method of discriminant analysis in the SPSS PC+ program and were used to predict group membership presented in Table 3 and Figure 4.

Interpretation of the standardized coefficients in Table 4 must be done with caution. "You should exercise care when attempting to interpret the coefficients, since correlations between variables affect the magnitudes and signs of the coefficients." (Norusis, 1986, p.B16) For instance, the negative sign on the college aspirations coefficient indicates that small function values are associated with the presence of college aspirations (coded 1), and larger values are associated with the absence of college aspirations. The group mean for dropouts is much lower than that of pregnant/parenting dropouts, and the presence of college aspirations is associated with other dropouts. However, some variables with negative standardized coefficients are positively correlated with the discriminant functions, and some positive standardized coefficients have negative correlations with the discriminant score. This occurs because the variables are
Table 4. Discriminant Analysis Standardized Canonical Coefficients--Research Question One.

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Function 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Demographic Characteristics</strong></td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>29.40</td>
</tr>
<tr>
<td>Native American</td>
<td>6.48</td>
</tr>
<tr>
<td><strong>Educational Background Factors</strong></td>
<td></td>
</tr>
<tr>
<td>Importance of education to family</td>
<td>5.45</td>
</tr>
<tr>
<td>Educational aspirations--college</td>
<td>-19.27</td>
</tr>
<tr>
<td>Career aspirations</td>
<td></td>
</tr>
<tr>
<td>Career</td>
<td>7.47</td>
</tr>
<tr>
<td>Leadership</td>
<td>23.57</td>
</tr>
<tr>
<td>Attitude toward school</td>
<td></td>
</tr>
<tr>
<td>Feelings about dropping out</td>
<td>1.05</td>
</tr>
<tr>
<td>Dropout due to money problems or</td>
<td>-5.79</td>
</tr>
<tr>
<td>unable to attend</td>
<td></td>
</tr>
<tr>
<td>Dropout due to reasons other than dislike</td>
<td>19.20</td>
</tr>
<tr>
<td>of school, staff, peers, money, or</td>
<td></td>
</tr>
<tr>
<td>personal problems</td>
<td></td>
</tr>
<tr>
<td>School activities</td>
<td></td>
</tr>
<tr>
<td>Fine arts</td>
<td>-5.00</td>
</tr>
<tr>
<td>Other after school activities</td>
<td>-1.81</td>
</tr>
<tr>
<td><strong>Reproductive History</strong></td>
<td></td>
</tr>
<tr>
<td>Importance of having children</td>
<td>3.38</td>
</tr>
<tr>
<td><strong>Psychological Variables</strong></td>
<td></td>
</tr>
<tr>
<td>Future time perspective</td>
<td></td>
</tr>
<tr>
<td>Age to start first fulltime job</td>
<td>-9.59</td>
</tr>
<tr>
<td>Age to finish education</td>
<td>6.66</td>
</tr>
<tr>
<td>Age to marry</td>
<td>31.04</td>
</tr>
<tr>
<td>Age to live in own home or apt.</td>
<td>-13.70</td>
</tr>
<tr>
<td><strong>Opportunity Factors</strong></td>
<td></td>
</tr>
<tr>
<td>Living situation</td>
<td></td>
</tr>
<tr>
<td>Importance of moving away from area</td>
<td>.72</td>
</tr>
<tr>
<td><strong>Group Centroids</strong></td>
<td></td>
</tr>
<tr>
<td>Group 1 Dropouts</td>
<td>-84.33</td>
</tr>
<tr>
<td>Group 2 Pregnant/Parenting Dropouts</td>
<td>64.87</td>
</tr>
</tbody>
</table>
highly correlated and the contribution of each is shared, making the individual coefficients alone difficult to interpret.

Each variable in Table 4 does contribute to the discriminating power of the function. An examination of the group means for each variable produces a meaningful summary of the characteristics for each group. Teen mothers who drop out are more likely to be Hispanic, have families who value education less, not aspire to college, are less likely to aspire to have a career, but more likely to aspire to lead, and feel unhappy about dropping out. They dropped out due to inability to attend or other problems not associated with school. They were not in fine arts but were in other after school activities. They plan to work, live on their own, and finish their education earlier than other dropouts, but marry later. Moving away from this part of the country is important to them. Dropouts who have not had children are more likely to be Native American, have families who value education more, aspire to college, and not feel unhappy about leaving school. They think having children is important. They have been in fine arts activities, and have a greater future orientation regarding work, finishing school, and living on their own, but plan to marry earlier than pregnant/parenting dropouts. These
variables which define the discriminant function do not explain the causes of either dropout or teen pregnancy. They merely describe the differences between the groups.

The variables which did not prove to be useful in differentiating between these two groups are worthy of note. Table 5 categorizes the variables available to determine the discriminant function by inclusion or exclusion from the function.

Among the demographic variables, being Black, Asian, or Caucasian, or not, had no influence in the function. Age and grade also did not contribute to the discrimination between the groups. Among educational background factors, the variables grade point average, retentions, dropout history, attendance, level of parents education, importance of education to friends, and others did not contribute to the discriminating power of the function. Marital status, the importance of marriage, family life, and the future for children were not important in the function representing reproductive history. The variables age at first birth and subsequent pregnancies were controlled in this analysis to see what other differences exist between these two groups.

The future time perspective is clouded by the fact that most of the teen mothers had already started fulltime employment, considered school finished, and moved out of
Table 5. Variables available to discriminate between pregnant/parenting dropouts and other dropouts.

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Included in the function</th>
<th>Excluded from the function</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Demographic Characteristics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Native American</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Asian</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Caucasian</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Grade</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td><strong>Educational Background Factors</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of credits earned</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Number of high schools attended</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Grade point average</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Grade appropriate to age</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Retentions</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Previous dropout</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Attendance</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Special education</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Importance of education to family</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Level of mother's education</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Level of father's education</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Importance of education to friends</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Receipt of dropout prevention service</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td><strong>Educational aspirations</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Importance of high school diploma</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Importance of college</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Level of parent aspiration for her</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Level of personal aspiration</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Lowest level of education acceptable</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td><strong>Career aspirations</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Career</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Leadership</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Importance of career success</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Importance of having lots of money</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Importance of steady work</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Training program or technical school</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Employed since dropout</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>
Table 5—Continued

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Included in the function</th>
<th>Excluded from the function</th>
</tr>
</thead>
</table>

**Educational background factors**
(Continued)

<table>
<thead>
<tr>
<th>Attitude toward school</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feelings about dropping out</td>
<td>X</td>
</tr>
<tr>
<td>Dropout due to money problems or unable to attend</td>
<td>X</td>
</tr>
<tr>
<td>Dropout to problems with peers</td>
<td>X</td>
</tr>
<tr>
<td>Dropout due to dislike of school</td>
<td>X</td>
</tr>
<tr>
<td>Dropout due to problems with school staff</td>
<td>X</td>
</tr>
<tr>
<td>Dropout due to personal problems</td>
<td>X</td>
</tr>
<tr>
<td>Dropout due to other reasons</td>
<td>X</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>School activities</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fine arts</td>
<td>X</td>
</tr>
<tr>
<td>Clubs</td>
<td>X</td>
</tr>
<tr>
<td>Sports Teams</td>
<td>X</td>
</tr>
<tr>
<td>Other after school activities</td>
<td>X</td>
</tr>
</tbody>
</table>

**Reproductive History**

| Importance of having children | X |
| Importance of finding right person to marry | X |
| Importance of happy family life | X |
| Importance of living close to family | X |
| Importance of giving children better life | X |
| Marital status | X |

**Psychological Variables**

<table>
<thead>
<tr>
<th>Future time perspective</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age to start first fulltime job</td>
<td>X</td>
</tr>
<tr>
<td>Age to finish education</td>
<td>X</td>
</tr>
<tr>
<td>Age to marry</td>
<td>X</td>
</tr>
<tr>
<td>Age to live in own home or apt.</td>
<td>X</td>
</tr>
</tbody>
</table>

**Opportunity Factors**

| Living situation | X |
| Importance of moving away from area | X |
| Importance of having leisure time | X |
| Plan to return or not | X |
their parents' homes. This removes these events from the future and makes them descriptive of that group. The opportunity factors explained by the living situation of the student, reasons to return or not, and the importance of having free time, were not identified as contributing to the difference between groups.

The identification of these variables is contrary to what is expected based on the work of Furstenberg (1976), and Moore and Waite (1977). Furstenberg reported that compared to classmates, the impact of pregnancy and parenting on educational attainment was substantial. Almost half the dropouts in that study were able students committed to obtaining a diploma, but were not able to overcome the barriers associated with early parenthood. If that was true for this sample, grade point average, retentions, attendance, and other educational background factors would be expected to differentiate between the two groups.

Moore and Waite only used ten variables to study the educational attainment of young women who were and were not mothers. Mother's and father's education, aptitude or ability, and influences of teachers and peers were found to differentiate between the two groups. None of these contribute to the between groups variance in this study.
Ascher (1985) found similarities between the characteristics of teen mothers and other problem groups, such as dropouts and unemployed youth. Shared traits included poor academic achievement, low self-esteem, low aspirations, low SES, and poor parent-child relationships. If these traits are indeed shared, then they would not be expected to differentiate between teen mothers who dropout and other young women who dropout. The results of this study confirm Ascher's work and suggest that pregnant/parenting dropouts and other dropouts are not different in academic achievement, educational aspirations, or value of family.

Research Question Two

The second discriminant analysis was run to differentiate between teen mothers who stayed in school and those who dropped out. Table 6 presents the classification results of the function defined to differentiate between these two groups. The combination of independent variables identified by this function was used to correctly classify 92.52 percent of the cases by group. Only 1.7% of the enrolled students and 14.9% of the dropouts were misclassified. The strength of this function is apparent when the misclassification rates are compared to those expected by chance alone--56% and 44% respectively.
Table 6. Classification results--pregnant/parenting enrolled students and dropouts.

<table>
<thead>
<tr>
<th>Actual Group</th>
<th>N</th>
<th>Predicted Group Membership</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>1 Enrolled Students</td>
<td>60</td>
<td>98.3%</td>
</tr>
<tr>
<td>2 Dropouts</td>
<td>47</td>
<td>14.9%</td>
</tr>
</tbody>
</table>

Percent of cases correctly classified: 92.52%

Figure 5 presents the histogram of the combined distribution of the scores for the two groups. The amount of overlap between the two groups is evident. The group means are indicated as class centroids.

Table 7 lists the Function 1 independent variables and the standardized coefficients which explain more than 86 percent of the variance (Wilks' Lambda=.14) between the two groups.

An examination of the group means for each of these variables produces a summary of the characteristics for each group. Those pregnant and parenting students who dropped out of school were more likely to have lower grades, lower attendance, have dropped out of school in the past, be minority, not be currently employed or involved in sports. They are not as happy with life, have family and friends who value education less, have lower educational aspirations, have more than one child, lower SES and lower
self-esteem. They do not value living close to family or having leisure time, but they do think it is important to work to correct social and economic inequalities. They have less future time perspective. Those pregnant/parenting students who maintained school enrollment were more likely to have higher grades, be happier, have family and friends who valued education, have one child only, hold higher educational aspirations, not value marriage, but did value money, living close to family, and having leisure time. They were higher SES status and had higher self-esteem scores. They were less likely to be minority or a retrieved
Table 7. Discriminant Analysis Standardized Canonical Coefficients--Research Question Two.

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Function 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Demographic Characteristics</strong></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>.27</td>
</tr>
<tr>
<td>SES</td>
<td>.47</td>
</tr>
<tr>
<td><strong>Educational Background Factors</strong></td>
<td></td>
</tr>
<tr>
<td>Grade Point Average</td>
<td>.43</td>
</tr>
<tr>
<td>Attendance</td>
<td>.64</td>
</tr>
<tr>
<td>Importance of education to family</td>
<td>.34</td>
</tr>
<tr>
<td>Importance of education to friends</td>
<td>.36</td>
</tr>
<tr>
<td>Educational aspirations</td>
<td></td>
</tr>
<tr>
<td>College</td>
<td>-.27</td>
</tr>
<tr>
<td>High school</td>
<td>-.35</td>
</tr>
<tr>
<td>Lowest education acceptable</td>
<td>-.27</td>
</tr>
<tr>
<td>Retrieved dropout</td>
<td>-.51</td>
</tr>
<tr>
<td>Past dropout</td>
<td>-.47</td>
</tr>
<tr>
<td>School activities--sports</td>
<td>.48</td>
</tr>
<tr>
<td>Career aspirations</td>
<td></td>
</tr>
<tr>
<td>Importance of having lots of money</td>
<td>.48</td>
</tr>
<tr>
<td>Currently employed</td>
<td>.19</td>
</tr>
<tr>
<td><strong>Reproductive History</strong></td>
<td></td>
</tr>
<tr>
<td>Subsequent pregnancy</td>
<td>-1.14</td>
</tr>
<tr>
<td>Number of children</td>
<td>.57</td>
</tr>
<tr>
<td>Importance of finding right person to marry</td>
<td>-.22</td>
</tr>
<tr>
<td>Importance of living close to parents</td>
<td>.39</td>
</tr>
<tr>
<td><strong>Psychological Variables</strong></td>
<td></td>
</tr>
<tr>
<td>Self-esteem score</td>
<td>-.23</td>
</tr>
<tr>
<td>Future time perspective</td>
<td></td>
</tr>
<tr>
<td>Die</td>
<td>.54</td>
</tr>
<tr>
<td>Happiness with life</td>
<td>.41</td>
</tr>
<tr>
<td>Importance of working to correct social and economic inequalities</td>
<td>-.59</td>
</tr>
<tr>
<td><strong>Opportunity Factors</strong></td>
<td></td>
</tr>
<tr>
<td>Importance of having leisure time</td>
<td>-.42</td>
</tr>
<tr>
<td><strong>Group Means</strong></td>
<td></td>
</tr>
<tr>
<td>Group 1 Enrolled Students</td>
<td>2.34</td>
</tr>
<tr>
<td>Group 2 Dropouts</td>
<td>-2.53</td>
</tr>
</tbody>
</table>
dropout and more likely to be employed and involved in sports. The mean age at which enrolled students expected to die was 71, compared to 58 for dropouts.

All variables entered into the analysis are listed in Table 8 and categorized by inclusion or exclusion from the discriminant function.

Discriminant analysis was run again with the direct method, as opposed to the Wilks stepwise method. Ten analyses were run, starting with only the variable grade point average and adding one variable each time. The variables chosen were those which explained the most between group variance. Table 9 lists the variables at each step, lambda, the variance explained (lambda-1), and the percent of correctly classified cases.

By the time ten variables are in the function, 75 percent of the variance is explained and 90.65 percent of the cases are correctly classified. The use of eight variables explains 70 percent of the variance and predicts the same percentage of group membership correctly. This compares with 23 variables in the full function which are used to explain 86 percent of the variance and predict 92.52 percent of the group memberships correctly. The value of the small addition in prediction power may not be worth the inclusion of the greater number of variables.
Table 8. Variables available to discriminate between pregnant/parenting enrolled students and dropouts.

<table>
<thead>
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<td>Importance of career success</td>
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</table>
Table 8. Variables available to discriminate between pregnant/parenting enrolled students and dropouts.

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Included in the function</th>
<th>Excluded from the function</th>
</tr>
</thead>
</table>

**Educational background factors**

(Continued)

- Importance of having lots of money X
- Importance of steady work
- Training program or technical school X
- Currently employed X
- School activities
  - Fine arts
  - Clubs X
  - Sports Teams X
  - Other after school activities X

**Reproductive History**

- Importance of finding right person to marry X
- Importance of happy family life X
- Importance of living close to family X
- Importance of giving children better life X
- Marital status X
- Age at first birth X
- Subsequent pregnancy X
- Number of children X
- Perceived effect of pregnancy on education X

**Psychological Variables**

- Future time perspective
  - Age to start first fulltime job X
  - Age to finish education X
  - Age to marry X
  - Age to live in own home or apt X
  - Age to die X
  - Age to be independent X
  - Age of serious illness X
  - Average future age X
Table 8. Variables available to discriminate between pregnant/parenting enrolled students and dropouts.

<table>
<thead>
<tr>
<th>Independent Variables</th>
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<th>Excluded from the function</th>
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<tr>
<td>Self-esteem score</td>
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<tr>
<td>Importance of working to correct social and economic inequalities</td>
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<td></td>
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<td>Locus of control</td>
<td>X</td>
<td></td>
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<td>Happiness with life</td>
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<td><strong>Opportunity Factors</strong></td>
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<tr>
<td>Living situation</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Importance of moving away from area</td>
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<td></td>
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<td>Importance of having leisure time</td>
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<td>Child care availability</td>
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Table 9. Explained variance between pregnant/parenting enrolled students and dropouts with from 1 to 10 variables.

<table>
<thead>
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<th>Variables</th>
<th>Lambda</th>
<th>Variance</th>
<th>Percent Classified Correctly</th>
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<td>.41</td>
<td>81.31</td>
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<td>.50</td>
<td>83.18</td>
</tr>
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<td>GPA, SES, Caucasian</td>
<td>.48</td>
<td>.52</td>
<td>81.31</td>
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<tr>
<td>GPA, SES, Caucasian, Subsequent pregnancy</td>
<td>.47</td>
<td>.53</td>
<td>81.31</td>
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<tr>
<td>GPA, SES, Caucasian, Sub. preg., friends' education</td>
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<td>GPA, SES, Caucasian, Sub. preg., friends' ed.,</td>
<td>.25</td>
<td>.75</td>
<td>90.65</td>
</tr>
</tbody>
</table>
The variables identified, either in the full function or the eight variable function, are consistent with those found in the review of the literature. Howard and Anderson (1978) identified two underlying factors associated with dropout--family history and academic difficulties. All of the studies that they reviewed found SES to be the most important factor in the family history. Ekstrom et al. (1986) showed that dropouts were more likely to be lower SES, minority, have more absenteeism, receive lower grades, and be from families which held lower educational aspirations. It is interesting to note that retentions and age appropriate to grade level were consistent indicators of dropout in the literature, but did not add to the discriminating ability of the function in this study.

Resnick and Blum (1986) note that teen mothers tend not to have high educational or career goals, either currently or prior to their pregnancies. The results of this investigation contradict that conclusion. The height of the aspirations or the relative standing compared to non-parenting teens has not been addressed, but a difference between those who remained in school and those who dropped out has been established in conjunction with other factors.
Moore and Waite (1977), Card and Wise (1977), and Waite and Moore (1978) all found that the younger the woman was when she had her first child, the fewer years of schooling she completed. Neither of the analyses done in this study supports that claim. Neither age nor grade was found to contribute to the discriminating ability between parenting dropouts and other dropouts, or between parenting students who dropped out and those who maintained enrollment. Waite and Moore also found that young mothers were less able to convert even an advantageous family background, support from others, ability, and motivation into education for themselves. Analysis on the difference between parenting students who remain enrolled and those who dropped out indicates that this is not the case for the population enrolled in this alternative program during the 1985-1986 school year.
CHAPTER FIVE

DISCUSSION

Summary of Results and Discussion of Significance

Two useful functions were identified. One discriminated between dropouts from the alternative program for pregnant and parenting teens and dropouts from regular high schools. The other discriminated between pregnant or parenting students who remained enrolled in the alternative program and students who dropped out of that program.

Research Question One: Is there a relationship between teen pregnancy/parenting and school dropout in regard to student demographic characteristics, educational background factors, reproductive history, psychological variables, and/or opportunity factors? The results indicate that there is a difference between pregnant/parenting dropouts and other high school dropouts. The function identified 17 variables, including being Hispanic, college and career aspirations, and importance of education to the family, which differentiate between these two groups. (See Table 4.) The function correctly predicted group membership, dropout from a regular school or the alternative program, for 74 percent of the cases.
Although a relationship has been identified between teen pregnancy/parenting and school dropout, it is not what would be expected. Dropouts from both groups share many traits in regard to demographics, educational background, psychological variables, and opportunity factors. A composite of the pregnant/parenting dropout presents a young woman who is not happy about her departure from school, but dropped out due to inability to attend or other problems not associated with school. She is more likely to be Hispanic and be from a family who does not value education as much as families of other dropouts. A career is not important to her, but she would like to be a leader. While in school, she was not in fine arts activities, but may have been in other after school activities. She has already worked a fulltime job, lived on her own, and may consider her education finished. She does not plan to marry as soon as other dropouts, and does not consider having children as important as they do. A composite of the nonpregnant/parenting dropout presents a young woman who is more likely to be Native American, has a family who values education more, may aspire to college, but not feel unhappy about leaving school. She thinks having children is important and plans to marry earlier than pregnant/parenting dropouts.
This study did not determine whether the noted differences in career and college aspirations and educational importance to the family were present prior to the pregnancy or were brought about as a result of the pregnancy and parenting experiences. No differences in previous educational achievement and other important educational background factors were apparent between these groups. Therefore, the relationship between teen pregnancy/parenting and school dropout, as determined by these results, should be described with caution. No evidence was found to support the prevalent assertion that able students who would be expected to continue with school, drop out because of the problems associated with pregnancy or parenting. If that were the case, differences between pregnant/parenting dropouts and other dropouts would be expected in regard to several of the educational background factors.

**Research Question Two:** Among pregnant/parenting female students, is there a relationship between demographic characteristics, educational background factors, reproductive history, psychological variables, and opportunity factors, and school continuation? The function identified several variables consistent with the dropout literature, but contrary to the literature on teen
pregnancy and parenting, regarding differences between pregnant/parenting students who drop out and those who remain in school. (See Table 7).

The function was able to predict correct group membership, enrolled teen parent or dropout, for 93% of the cases. A relationship similar to that found in the literature between the population of school dropouts and non-dropouts was found. Among pregnant/parenting students, minority ethnicity, low SES, low grades, poor attendance, little importance of education to family and friends, problems with parents, low educational and career aspirations, history of school dropout, and no school activity involvement characterized the demographic and educational background factors of the dropouts. Reproductive history consistent with dropout included more than one child and high importance placed on finding the right person to marry. Dropouts had lower self-esteem and less sense of future. Opportunity factors were not identified in the function as important. The alternative program made the opportunity to return to school at any time well known and child care was available on site to all students.

The differences between pregnant/parenting dropouts and enrolled students in the alternative program identified
in the analysis are consistent with the differences between any dropouts and non-dropouts (Wehlage & Rutter, 1986). They are not typical of students who are overwhelmed by the burden of childbearing and rearing and unable to take advantage of family or academic situations conducive to further education.

**Conclusions**

The results of this study indicate that pregnant and parenting students who enrolled in an alternative program were able to overcome or compensate for the problems created by pregnancy and/or parenting to maintain school enrollment if they did not fit the profile of the dropout presented in the literature and found in this investigation. However, those pregnant and/or parenting students who enrolled in an alternative program and who fit the profile of the dropout, were unable to take advantage of the alternative program enough to prevent dropping out of school.

This alternative program for pregnant and parenting students does provide a means for students who would be expected to continue high school, if not for the pregnancy, to do so. Dropout prevention and retrieval efforts need to include pregnant and parenting teens and to address their educational background factors, demographic
characteristics, psychological and opportunity factors in addition to their reproductive history. Studies of the causes of school dropout need to take into account school performance and other educational factors and be more cautious in citing pregnancy as the reason for dropout. Too often, pregnancy and parenting have been designated as the sole cause or excuse for school dropout (Barro & Kolstad, 1986; Furstenberg, 1976).

Recommendations for Further Research

1. Tests of the prediction power of the functions identified in this study should be conducted on new data from other locations and time periods, including the current school year. Replication of the identification of the predictor (independent) variables is important to validate the conclusions.

2. An examination of the differences between the pregnant/parenting teens who remain in their regular high schools and those who choose to enroll in an alternative program would aid program planners. It would be useful to know if the educational background, demographic characteristics, and psychological factors of those who maintain enrollment at their home schools differ from those who choose an alternative program.
3. An examination of the differences between those pregnant/parenting students who drop out of a regular high schools and those who drop out of an alternative program would be similarly useful. It would provide an opportunity to apply the same model for selection of variables.

4. An examination of the effects of different alternative program models would provide information on the types of intervention which best mediate the characteristics of pregnant/parenting students at risk to drop out of school. Different program models may serve some groups better than others.

5. Further tests of Darabi's model are suggested to clarify the importance of opportunity factors. All alternative program students knew of the opportunity to return and the availability of child care, so these were not tested in this study.

6. The influence of subsequent pregnancies should be investigated to determine if those students who dropped out became pregnant again, or if those who became pregnant again dropped out.

Implications for Conceptual Development

This study has used Darabi's (1979) model of the determinants of school return after the birth of a child to examine the relationship between adolescent pregnancy and
school drop out. The Darabi model has provided an appropriate framework for this investigation. A review of the models of educational attainment and school dropout presented in Chapter Two is useful to summarize the relationship. Natriello et al. (1986) presented a model of reciprocal relationships between student characteristics and school processes which may produce dropout and lead to consequences. That model was rejected for this investigation because the pregnancy could have been a student characteristic or a consequence. Regarding research question one, the pregnancy is almost irrelevant. Few student characteristics and school processes of the pregnant/parenting dropouts differ from those of other dropouts. Regarding research question two, student characteristics other than pregnancy are very important and the structure and processes of alternative programs should be examined for their effects. Future studies of school dropout may find the Natriello et al. model useful as long as these issues are considered. Pregnancy should not be considered a student characteristic which explains dropping out. School processes which ameliorate the consequences of low grades, poor attendance, little value of education, low aspirations and low SES should be sought and implemented both in the regular high schools and in alternative programs for pregnant/parenting teens.
Similar use may be made of the Ekstrom et al. (1986) path model of factors which affect the decision to stay in or drop out of school. Demographics, school performance, and family education support system have all been demonstrated to be important in discriminating between pregnant/parenting students who do and do not drop out of an alternative program.

The educational attainment model presented by Kolstad and Owings (1986) has direct applications to pregnant/parenting students. This model predicts that students who should not have dropped out based on their background and ability are more likely to return than those whose actions fit their resources and abilities. Among the students enrolled in the alternative program, those whose backgrounds and abilities predicted continued enrollment, did indeed stay in school. Contrary to Waite and Moore (1978), young mothers who had an advantageous family background, support from others, ability, and motivation were able to maintain enrollment, at least, in an alternative program. There is a parallel in the medical literature which may be useful. In the 1960s and 1970s, many studies were cited that blamed maternal and neonatal health complications on the age at which teens delivered.
Current studies refute this notion:

Most recently, there is increasing evidence to support the conclusion that adolescence, per se, may not be a risk factor for poor health outcomes of the mother or her offspring, but rather, that the preponderance of other risk factors such as low socioeconomic status, poor prenatal care and primiparity is the reason for their poor outcomes. (Strobino, 1987, p.111)

That conclusion might be paraphrased to state that teen pregnancy, per se, may not be a risk factor for school dropout, but rather, that the preponderance of other risk factors such as low socioeconomic status, poor attendance, low grade point average, low value of education, and low educational aspirations is the reason for their poor educational outcomes.
APPENDIX A

DATA COLLECTION INSTRUMENTS
1986-87 Dropout Research Project
Background Information for Interviewed Persons

Student Name ___________________ Matric ________ Grade _____
High School ___________________ Middle School ___________________
Enrolled? _____ Data Collector ___________________________________

Schools Attended

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Withdrawal Codes

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Attendance

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Special Education

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**Subsidized Lunch:** Reduced __  Free __

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2/23/87
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**Withdrawal Codes**

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**Attendance**

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<th>DAYS PRESENT</th>
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</tr>
</tbody>
</table>

**Special Education Program:** ______________

**Grades at TAP**

<table>
<thead>
<tr>
<th>CREDITS BROUGHT TO TAP</th>
<th>CREDITS EARNED</th>
<th>GPA AT TAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>___________</td>
<td>___________</td>
<td>__________</td>
</tr>
</tbody>
</table>

**Guardian Status—Living With (Relationship):** ______________

**Free Lunch?** __________

**End of School Year Status:**

<table>
<thead>
<tr>
<th>DROPOUT?</th>
<th>COMPLETED SCHOOL YEAR?</th>
<th>GRADUATED?</th>
<th>TRANSFER TO OTHER SCHOOL?</th>
</tr>
</thead>
<tbody>
<tr>
<td>________</td>
<td>________</td>
<td>________</td>
<td>________</td>
</tr>
</tbody>
</table>
1966-67 Dropout Study
School Leaver Interview Questionnaire

Person Interviewed ___________________________ Ethnicity __ Sex __

Last School ___________________________ Withdrawal Code __ Reason __

Withdrawal Date ______ Matric _______ DOB _______ P.L. _______

Address __________________________________ Phone __________________

Interviewer ___________________ Date ______________

DIRECTIONS FOR INTERVIEWER: "I'm helping the

to conduct a study to find out more about why students leave
school before graduation. I appreciate your willingness to be interviewed
for this study. The information you provide will be kept confidential.
You don't have to answer any questions that you don't want to answer. The
information that you and others provide will be summarized to help
students remain in school until graduation. Do you have any questions
before we start?"

"I'd like to start by verifying some information about you. Did you
go to ______ High School before you left school? Did you leave
school in ______ , 1986? Is your current address ____________
? Is your current phone number ____________ ?"

la. Which of the reasons on this card best describes the major
reason that you left school? [SHOW CARD I]

[ANSWERS ON CARD I]

(1) difficulty with school work or dislike of school
work--making poor grades, couldn't understand material, bored, disliked
school subjects, etc.
(2) problems with school staff--often in trouble, disliked
teachers, unfair treatment by administrators or teachers, lack of caring
by staff, no one to listen to problems, suspended, etc.
(3) because of peer group--friends not attending school, fights
with other students, threats by other students, etc.
(4) problems with money or unable to attend school--had to work
to support self or family, had to babysit, inadequate school clothes, etc.
(5) personal problems--problem with parents, didn't fit in at
school, drug problems, pregnant, sick or injured, etc.
(6) other--none of the above reasons
b. Please tell me more about why you left school.

2a. Have you ever withdrawn from school before last year, other than to transfer to another school? [1 = yes, 2 = no]

b. If so, how many times?

c. If so, which of the reasons on this card best describes the major reason that you left school? [SHOW CARD 1]

[ANSWERS ON CARD 1]

(1) difficulty with school work or dislike of school work--making poor grades, couldn't understand material, bored, disliked school subjects, etc.
(2) problems with school staff--often in trouble, disliked teachers, unfair treatment by administrators or teachers, lack of caring by staff, no one to listen to problems, suspended, etc.
(3) because of peer group--friends not attending school, fights with other students, threats by other students, etc.
(4) problems with money or unable to attend school--had to work to support self or family, had to babysit, inadequate school clothes, etc.
(5) personal problems--problems with parents, didn't fit in at school, drug problems, pregnant, sick or injured, etc.
(6) other--none of the above reasons

3. Which one of the answers on this card best describes how you feel about your decision to leave school? [SHOW CARD 2]

[ANSWERS ON CARD 2]

(1) very unhappy
(2) somewhat unhappy
(3) neither happy nor unhappy
(4) somewhat happy
(5) very happy

[If interviewee doesn't know, code with a "9".]
4a. Have you received any other education or training since leaving high school? [1 = yes, 2 = no]
   b. If so, where did you go to school? __________________________
      [ANSWER CODES]
      (1) night school or other alternative school
      (2) technical or trade school--beauty school, ABC Tech, etc.
      (3) GED program
      (4) Pima College
      (5) Other--none of the above
   c. If so, what did you study? __________________________

5a. Are you employed? [1 = yes, 2 = no]
   b. If so, what do you do? __________________________
   c. If so, how many hours do you work each week? __________
      [ANSWER CODES]
      (1) 10 hours or less
      (2) 11-20 hours
      (3) 21-30 hours
      (4) 31 or more hours
   d. Approximately how much money do you earn each month? _____
      [ANSWER CODES]
      (1) under $500
      (2) $500-$800
      (3) $801-$1200
      (4) more than $1200

6. While you were in school, what did you like most about school?

7. While you were in school, what did you like least about school?
8a. Was anything done to help you stay in school before you left? [1 = yes, 2 = no]

b. If so, what?

9. What could the school have done to have kept you from leaving school?

10. If you're not working or going to school full time, what do you do with your time?

11. Which one of the answers on this card best describes how happy you are with your life now? [SHOW CARD 2]

[ANSWERS ON CARD 2]

(1) very unhappy
(2) somewhat unhappy
(3) neither happy nor unhappy
(4) somewhat happy
(5) very happy

[If interviewee doesn't know, code with a "9".]

12. What's the most important thing that you want to do in the future?

13a. Were you involved in any of the following activities while you were in school? [1 = yes, 2 = no]

(1) sports teams
(2) clubs
(3) fine arts, such as band or drama
(4) other after school activities.

If yes, what activity?

b. If no, why not?
14. Who do you live with?

[ANSWER CODES]

(1) parent(s) and/or stepparent(s)
(2) other guardian
(3) friend
(4) by self
(5) other

15. How much education does (did) your father [stepfather or male guardian] have? ___

[ANSWER CODES]

(1) eighth grade or less
(2) some high school
(3) high school graduate
(4) some college
(5) college graduate

[If interviewee doesn't know, code with a "9".]

16. How much education does (did) your mother [stepmother or female guardian] have? ___

[ANSWER CODES]

(1) eighth grade or less
(2) some high school
(3) high school graduate
(4) some college
(5) college graduate

[If interviewee doesn't know, code with a "9".]

17a. Which one of the answers on this card best describes how important education is to your family? [SHOW CARD 3]

[ANSWERS ON CARD 3]

(1) very unimportant
(2) somewhat unimportant
(3) somewhat important
(4) very important

[If interviewee doesn't know or doesn't answer, code with a "9".]

b. How do you know? ________________________________
18a. Which one of the answers on this card best describes how important education is to your friends? [SHOW CARD 3]

[ANSWERS ON CARD 3]

(1) very unimportant
(2) somewhat unimportant
(3) somewhat important
(4) very important

[If interviewee doesn't know or doesn't answer, code with a "9".]

b. How do you know? ________________________________

19. What occupation would you most like to have? _____________

20. As things stand now, which one of the answers on this card best describes how far in school you think you will get? [SHOW CARD 4]

[ANSWERS ON CARD 4]

(1) less than high school graduation
(2) high school graduation only
(3) vocational, trade or business school--less than 2 years
(4) vocational, trade or business school--2 years or more
(5) community college
(6) four year college

[If interviewee doesn't know, code with a "9".]

21. Which one of the answers on this card best describes how far in school you think your parents (stepparents or guardian) want you to go? [SHOW CARD 4]

[ANSWERS ON CARD 4]

(1) less than high school graduation
(2) high school graduation only
(3) vocational, trade or business school--less than 2 years
(4) vocational, trade or business school--2 years or more
(5) community college
(6) four year college

[If interviewee doesn't know, code with a "9".]
22. Which one of the answers on this card best describes the lowest level of education that you would be satisfied with? [SHOW CARD 4]

[ANSWERS ON CARD 4]

(1) less than high school graduation
(2) high school graduation only
(3) vocational, trade or business school—less than 2 years
(4) vocational, trade or business school—2 years or more
(5) community college
(6) four year college

[If interviewee doesn't know, code with a "9".]

23a. Do you have children? [1 = yes, 2 = no]

b. If so, how many children do you have?

[RESPONSE CODES]

(1) one
(2) two
(3) three
(4) four
(5) five
(6) six or more

24. Which one of the answers on this card best describes how important each of the following is to you in your life? [SHOW CARD 5]

a. being successful in your line of work
b. finding the right person to marry and having a happy family life
c. having lots of money
d. having strong friendships
e. being able to find steady work
f. being a leader in your community
g. being able to give your children better opportunities
h. living close to parents and relatives
i. getting away from this area of the country
j. working to correct social and economic inequalities
k. having children
l. having leisure time to enjoy your own interests

[RESPONSES FOR CARD 5]

(1) not important
(2) somewhat important
(3) very important

[If interviewee doesn't know, code with a "9".]

25. At what age do you think you will (did you):

   a. get married?
   b. have your first child?
   c. start your first regular (not summer) job?
   d. live in your own home or apartment?
   e. finish your full-time education?

   (ANSWER CODES FOR 25a.-e)

   (1) don't expect to do this
   (2) have already done this
   (3) under 18
   (4) 19
   (5) 20
   (6) 21
   (7) 22
   (8) 23
   (9) 24
   (10) 25
   (11) 26
   (12) 27
   (13) 28
   (14) 29
   (15) 30
   (16) over 30

   [If interviewee doesn't know, code with a "99".]

26a. Do you plan to go back to school? (1 = yes, 2 = no)

   b. If so, when?

   c. If not, under what conditions would you consider going back to school?

27. That's all of the questions that I have for you. Do you have anything else that you would like to add?

   "Thanks a lot for your help with this project.

R & E
1/19/87
1986-87 Dropout Study
Enrolled Student Questionnaire

Person Interviewed ____________________ Ethnicity ______ Sex ______
School ________________________ Matric ______ DOB ______ P.L. ______
Address __________________________ Phone _______________
Interviewer _________________________ Date ________________

DIRECTIONS FOR INTERVIEWER: "I'm helping the conduct a study to find out what things prevent students from leaving school before graduation. I appreciate your willingness to be interviewed for this study. The information you provide will be kept confidential. You don't have to answer any questions that you don't want to answer. The information that you and others provide will be summarized to help more students stay in school until graduation. Do you have any questions before we start?"

"I'd like to start by verifying some information about you. Do you go to ______ High School? Is your current address _____________? Is your current phone number ____________? 

---

1a. Have you ever withdrawn from school (other than to transfer to another school)? [1 = yes, 2 = no]

1b. If so, which of the following reasons best describes the major reason that you left school? [SHOW CARD 1]

(ANSWERS ON CARD 1)

1) difficulty with school work or dislike of school work—making poor grades, couldn't understand materials, bored, disliked school subjects, etc.
2) problems with school staff—often in trouble, disliked teachers, unfair treatment by administrators or teachers, lack of caring by staff, no one to listen to problems, suspended, etc.
3) because of peer group—friends not attending school, fights with other students, threats by other students, etc.
4) problems with money or unable to attend school—had to work to support self or family, had to babysit, inadequate school clothes, etc.
5) personal problems—problems with parents, didn't fit in at school, drug problems, pregnant, sick or injured, etc.
6) other—none of the above reasons

---

c. If so, why did you return to school? __________________________

---
2a. Are you employed? [1 = yes, 2 = no]

b. If so, what do you do? _______________________

c. If so, how many hours do you work each week? _______________________

[ANSWER CODES]

1. 10 hours or less
2. 11-20 hours
3. 21-30 hours
4. 31 or more hours

3. What do you like most about school? _______________________

4. What do you like least about school? _______________________

5. How happy are you with your life now? [SHOW CARD 2]

[ANSWERS ON CARD 2]

1. very unhappy
2. somewhat unhappy
3. neither happy nor unhappy
4. somewhat happy
5. very happy

[If interviewee doesn't know, code with a "9".] 6. What's the most important thing that you want to do in the future?

7. Have you been involved in any of the following activities while in school? [1 = yes, 2 = no]

1. sports teams
2. clubs
3. fine arts, such as band or drama
4. other after school activities

If yes, what activity? _______________________

8. Who do you live with?

[ANSWER CODES]

(1) parent(s) and/or stepparent(s)
(2) other guardian
(3) friend
(4) by self
(5) other

9. How much education does [did] your father [stepfather or male guardian] have? ___

[ANSWER CODES]

(1) eighth grade or less
(2) some high school
(3) high school graduate
(4) some college
(5) college graduate

[If interviewer doesn't know, code with a "9".]

10. How much education does [did] your mother [stepmother or female guardian] have? ___

[ANSWER CODES]

(1) eighth grade or less
(2) some high school
(3) high school graduate
(4) some college
(5) college graduate

[If interviewer doesn't know, code with a "9".]

11a. Which one of answers on this card best describes how important education is to your family [SHOW CARD 3]

[ANSWERS ON CARD 3]

(1) very unimportant
(2) somewhat unimportant
(3) somewhat important
(4) very important

[If interviewer doesn't know, code with a "9".]

b. How do you know __________________________________________
12a. Which one of the answers on this card best describes how important education is to your friends? [SHOW CARD 3]

[ANSWERS ON CARD 3]

(1) very unimportant  
(2) somewhat unimportant  
(3) somewhat important  
(4) very important

[If interviewee doesn't know, code with a "9".]

b. How do you know?

13. What occupation would you most like to have?

14. As things stand now, which one of the answers on this card best describes how far in school you think you will get? [SHOW CARD 4]

[ANSWERS ON CARD 4]

(1) less than high school graduation  
(2) high school graduation only  
(3) vocational, trade or business school--less than 2 years  
(4) vocational, trade or business school--2 years or more  
(5) community college  
(6) four year college

[If interviewee doesn't know, code with a "9".]

15. Which one of the answers on this card best describes how far in school you think your parents want you to go? [SHOW CARD 4]

[ANSWERS ON CARD 4]

(1) less than high school graduation  
(2) high school graduation only  
(3) vocational, trade or business school--less than 2 years  
(4) vocational, trade or business school--2 years or more  
(5) community college  
(6) four year college

[If interviewee doesn't know, code with a "9".]
16. Which one of the answers on this card best describes the lowest level of education you would be satisfied with? [SHOW CARD 4]

[ANSWERS ON CARD 4]

(1) less than high school graduation
(2) high school graduation only
(3) vocational, trade or business school--less than 2 years
(4) vocational, trade or business school--2 years or more
(5) community college
(6) four year college

[If interviewee doesn't know, code with a "9".]

17a. Do you have children? [1 = yes, 2 = no]

b. If so, how many children do you have?

[RESPONSE CODES]

(1) one
(2) two
(3) three
(4) four
(5) five
(6) six or more

18. How important is each of the following to you in your life?

[SHOW CARD 5]

a. being successful in your line of work
b. finding the right person to marry and having a happy family life
c. having lots of money
d. having strong friendships
e. being able to find steady work
f. being a leader in your community
g. being able to give your children better opportunities
h. living close to parents and relatives
i. getting away from this area of the country
j. working to correct social and economic inequalities
k. having children
l. having leisure time to enjoy your own interests

[ANSWERS ON CARD 5]

(1) not important
(2) somewhat important
(3) very important

[If interviewee doesn't know, code with a "9".]
19. At what age do you think you will [did you]:

   a. get married?

   b. have your first child?

   c. start your first regular (not summer) job?

   d. live in your own home or apartment?

   e. finish your full-time education?

   [RESPONSE CODES FOR 19a-e]

   (1) don't expect to do this
   (2) have already done this
   (3) under 18
   (4) 18
   (5) 19
   (6) 20
   (7) 21
   (8) 22
   (9) 23
   (10) 24
   (11) 25
   (12) 26
   (13) 27
   (14) 28
   (15) 29
   (16) 30
   (17) over 30

   [If interviewee doesn't know, code with a "99"].

20. That's all of the questions that I have for you. Do you have anything else that you would like to add?

   ____________________________________________________________

   "Thanks a lot for your help with this project."

   R & E
   1/19/87
Additional questions in interview questionnaires for pregnant and parenting students or dropouts follow on the next four pages.
____ Since your pregnancy, have your plans for your own education

1. increased
2. decreased
3. stayed the same?

What effect did your pregnancy have on your decision to leave, stay in, or return to school?

Do you have the following items in your home (or in your parents home when you lived with them)?

____ typewriter
____ specific place to study
____ daily newspaper
____ encyclopedia or other reference books
____ electric dishwasher
____ two or more cars or trucks that run
____ your own room
____ pocket calculator
____ more than 50 books
Please describe below the job most recently held by your father (stepfather or male guardian), even if he is not working at present.

(WRITE IN) .................................................................................................................................

A. Which of the categories below comes closest to describing that job?
(MARK ONE)

CLERICAL such as bank teller, bookkeeper, secretary, typist, mail carrier, ticket agent ....................................................
CRAFTSMAN such as baker, automobile mechanic, machinist, painter, plumber, telephone installer, carpenter ..............................................
FARMER, FARM MANAGER ........................................................................................................
HOMEMAKER (without other job) .....................................................................................................
LABORER such as construction worker, car washer, sanitary worker, farm laborer ..........................................................
MANAGER, ADMINISTRATOR such as sales manager, office manager, school administrator, buyer, restaurant manager, government official ..........................................................
MILITARY such as career officer, enlisted man in the Armed Forces .............................................................................
OPERATIVE such as meat cutter, assembler, machine operator, welder, taxicab, bus or truck driver ......................................................
PROFESSIONAL such as accountant, artist, registered nurse, engineer, librarian, writer, social worker, actor, athlete, politician, but not including school teacher ..........................................................
PROFESSIONAL such as clergyman, dentist, physician, lawyer, scientist, college teacher .............................................................................
PROPRIETOR OR OWNER such as owner of a small business, contractor, restaurant owner ..........................................................................
PROTECTIVE SERVICE such as detective, police officer or guard, sheriff, fire fighter ..........................................................................
SALES such as salesperson, advertising or insurance agent, real estate broker ..........................................................
SCHOOL TEACHER such as elementary or secondary .............................................................................
SERVICE such as barber, beautician, practical nurse, private household worker, janitor, waiter ..........................................................................
TECHNICAL such as draftsman, medical or dental technician, computer programmer ..........................................................
Never worked ........................................................................................................................................
Don't know ........................................................................................................................................
THE QUESTIONS IN THIS PART ASK YOU TO DECIDE HOW YOU FEEL ABOUT EACH STATEMENT. READ EACH ONE AND THEN DECIDE WHICH NUMBER BELOW BEST DESCRIBES YOUR REACTION. WRITE THE NUMBER IN THE BLANK. WHEN YOU ARE FINISHED, FOLD THIS PAPER AND SEAL IT IN THE ENVELOPE PROVIDED.

NUMBER
1 = You STRONGLY AGREE with the statement; it's really true for you.
2 = You AGREE with the statement; it's mostly true for you.
3 = You DISAGREE with the statement; it's mostly not true for you.
4 = You STRONGLY DISAGREE with the statement; it's not at all true for you.

___ 1. On the whole, I am satisfied with myself.
___ 2. Good luck is more important than hard work for success.
___ 3. At times I think I am no good at all.
___ 4. Every time I try to get ahead, something or somebody stops me.
___ 5. I feel that I have a number of good qualities.
___ 6. I am able to do things as well as most people.
___ 7. Planning only makes a person unhappy, since plans hardly ever work out anyway.
___ 8. I feel I do not have much to be proud of.
___ 9. I certainly feel useless at times.
___ 10. People who accept their condition in life are happier than those who try to change things.
___ 11. What happens to me is my own doing.
___ 12. I feel that I am a person of worth, at least equal to others.
___ 13. I wish I could have more respect for myself.
___ 14. All in all, I am inclined to feel that I am a failure.
___ 15. When I make plans, I am almost certain I can make them work.
___ 16. I take a positive attitude towards myself.
For each of the following items, please write in the ‘future age’ column, the age at which you think these events will happen to you. If they have already happened, please write in the age at which they occurred in the ‘past age’ column. If you think any of these will never happen to you, place a check mark in the ‘never’ column.

<table>
<thead>
<tr>
<th>Event</th>
<th>Future Age</th>
<th>Past Age</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Become independent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visit a foreign country</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Finish college</td>
<td></td>
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<td></td>
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<tr>
<td>Have enough money</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Get a job I really want</td>
<td></td>
<td></td>
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<tr>
<td>Have a new car</td>
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<tr>
<td>Get married</td>
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<tr>
<td>Buy a home</td>
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<td></td>
<td></td>
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<tr>
<td>Get a ticket for speeding</td>
<td></td>
<td></td>
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<tr>
<td>Move to another city</td>
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<td></td>
<td></td>
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<tr>
<td>Die</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Live on my own</td>
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<td></td>
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<tr>
<td>Have a first child</td>
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<td></td>
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<tr>
<td>Get high</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Be asked to retire from job</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Become pregnant</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Get what I really want</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have a long vacation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Become a grandmother</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Be satisfied with myself</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Live with a boyfriend</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Have expensive clothes</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Have serious marriage problems</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Get a scholarship</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enjoy life my own way</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have a serious illness</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Be a leader</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>My first child gets married</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Be popular</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Get a divorce</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solve my problems</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lose someone I love</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
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REFERENCES


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