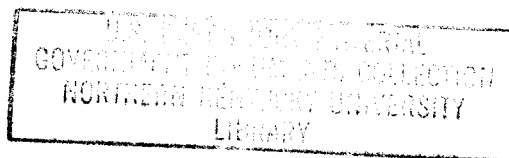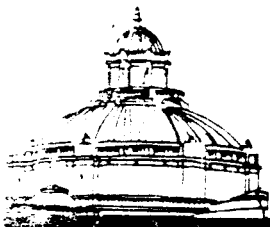87-637 EPW

CRS REPORT FOR CONGRESS

TEENAGE SEXUAL ACTIVITY AND CHILDBEARING:
AN ANALYSIS OF THE RELATIONSHIPS OF BEHAVIOR TO FAMILY AND PERSONAL BACKGROUND

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ABSTRACT

This report uses the National Survey of Family Growth to examine the effects of a variety of social and economic factors on the likelihood that a teenage girl will be sexually active, will use contraceptives, and will bear a child. Issues related to the high levels of teenage sexual activity, pregnancy, and childbearing in this country are being actively debated by policymakers from all perspectives and at all levels of government. The report examines the differences in factors associated with these different behaviors for white and black as well as younger and older teens.

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INTRODUCTION

Issues related to the high levels of teenage sexual activity, pregnancy, and childbearing in this country are being actively debated by policymakers from all perspectives and at all levels of government. Debate in the Congress has recently focused on the types of programs that the Federal Government might support to reduce the incidence of these behaviors. Policymakers have proposed a wide range of interventions, including programs to reduce sexual activity among teens, to expand sex education and birth control information, to broaden family planning services, and to encourage teens to place infants for adoption.

This report is designed to provide background information on various aspects of the problem of teenage childbearing by teenage girls. 1/ Using data on teenage girls from the National Survey of Family Growth (NSFG), 2/ conducted in 1982 by the National Center for Health Statistics, U.S. Department of Health and Human Services (HHS), the report analyzes factors associated with different types of behavior among teens related to three aspects of teen

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1/ This report is the third in a series of CRS reports on issues related to teenage pregnancy. The first, "Teenage Pregnancy and Childbearing: Incidence Data" (CRS Report No. 87-11 EPW, by Sharon Stephan) provided current and historical data on the incidence of teenage pregnancy and childbearing in the United States. The second, "The Children of Teenage Parents" (CRS Report No. 87-94 EPW, by Jeanne E. Griffith), examined the consequences of teenage childbearing for the children of teenage mothers.

2/ See appendix A for a more detailed discussion of this survey and its limitations.

childbearing: teenage sexual activity, contraceptive use among sexually active teens, and childbearing among teens. In general, four types of factors are examined in association with these behavior differences: 1) family background (e.g., education of the teen's mother, family income, number of parents the teen lived with, and level of communication between the teen and her parents), 2) personal characteristics (e.g., race and ethnicity, religion, sex education, age started dating, current major activity, or age of sexual maturity), 3) geographic factors (e.g., region and urban/rural status), and 4) factors linked to the sexual practices of the teens (e.g., age at first sex, use of contraceptives at first sex, medical consultation about contraception, frequency of sexual intercourse, and number of children previously born). The report examines all female teens, but to identify important differences between specific groups, detailed information is also presented (to the extent possible) for different race and ethnic groups as well as for both younger and older teens.

The next section of the introduction to this report presents a summary of the major findings of these analyses. Chapter 1 discusses the policy context underlying the study of these particular factors associated with teen childbearing. Chapters 2 through 4 present the findings of the analyses on the three major behaviors (teen sexual activity, contraceptive use, and childbearing). Chapter 5 summarizes these findings and draws on the data analysis to provide better understanding of the relationships among the different factors and behaviors studied. Chapter 6 presents the conclusions.

SUMMARY

A review of background issues related to teenage childbearing suggests the following points to keep in mind:

Background on Teen Childbearing

o **Although** teenage birth rates have been declining for several decades, the issue remains one of serious public concern. The consequences of becoming a parent at very young ages may be more deleterious for the well-being of women and their families today than ever before.

o **Teens** become parents only after passing through a series of decisions: 1) whether to become sexually active, 2) whether to use contraceptives, 3) if pregnant, whether to carry the pregnancy to term, and 4) if bearing a child, whether to place the infant for adoption. Each of these decisions is subject to different types of policy intervention, and opinions differ as to which points, if any, should be addressed in public policy.

o **Birth** rates for younger teens are much lower than they are for older teens. However, rates have been declining much faster among older teens (18 to 19 years old) than among younger ones (under 17 years).

o **The** consequences of parenting are more serious for younger than for older teens. The younger the teen when she becomes a parent, the more likely she is not to have completed school, not to be married, and to become dependent on welfare. Possible policy interventions for the two age groups may differ considerably, as the characteristics of teen mothers vary with age and the opportunities for influence differ.

o **Rates** of teenage childbearing are much higher among blacks than whites, and Hispanic rates fall in between. The share of the population that is minority in this country is projected to increase greatly over the next decades. This demographic projection heightens interest in better understanding differences in teen childbearing among the race and ethnic groups.

o **The** family background and personal characteristics of teens are important factors that increase our understanding of the likelihood that a teen will become a parent. The nature of different characteristics, and their relationship to teen parenting, provides insights into the need for short- and long-range policy interventions.

The following findings are based on estimates from and analysis of the National Survey of Family Growth:

Teenage Sexual Activity and Age at First Sex

o Family background factors are closely related to teenage sexual activity. Teens whose mothers have less education, whose families'incomes are closer to the poverty level, who lived with only one parent when they were 14 years old, or who feel that they communicate more with their parents about sex-related issues are more likely to have had sexual intercourse than other teens.

o Personal characteristics are also closely associated with teen sexual activity. Teens who started dating early, who indicate less involvement in religious activities, who are non-Catholic, and who are black or Hispanic are more likely to be sexually active.

o Teens from the south and the west are more likely to be sexually active than teens from the north central part of the country, but teens from the northeast are by far the least likely to be active.

o Although black teens are more likely to be sexually active than white teens, fewer of the factors examined are important for indicating differences in sexual activity among black teens than for white teens. Nevertheless, those factors that are important for distinguishing among black teens (including mother's education, how many parents lived with at age 14, age started dating, and degree of religious commitment) appear to indicate larger effects on the black than on the white population.

o Younger teens are less likely to be sexually active than older teens, but similar factors are related to the sexual activity of the two groups.

o Not all the family and personal background and geographic factors examined are as important in identifying differences in the age when a teen first has sexual intercourse. Teens who are likely to become sexually active may have other factors that determine the actual timing of that activity. However, there are some important differences. Teens who lived with only one parent when 14 years old, who began dating earlier, who are black or Hispanic, who reached sexual maturity at a very young age, who have not had some formal sex education, and who have lower degrees of personal religious commitment are more likely to have first had sexual intercourse at an earlier age.

Contraceptive Use

o The analysis of teenage use of contraceptives did not provide much insight into differences among teens in their use of contraceptives. The family background and personal factors examined here did not help explain differences in contraceptive use among sexually active teens. Current use of contraceptives among

sexually active teenagers may have some relationship to sex-related behaviors. Teens who first had sex at an earlier age, who did not use contraception the first time they had sex, who have not consulted with doctors or other trained persons about contraception, who have sexual intercourse on a less frequent basis, or who have not yet had a baby appear to be less likely to currently use contraceptives than their peers.

Teenage Childbearing

o **Family background and personal factors are important for identi-fying teens who are more likely to have had a child.** Some of these factors, however, appear to be more important in distinguishing teens who are more likely to be sexually active—and thus in the population at risk of bearing a child. Among sexually active teens, those whose families have lower income levels relative to the poverty threshold, who do not communicate with their parents about pregnancy and contraception, who are black or Hispanic, who are not in school or working, who first had sex at an earlier age, and who are married are more likely to have had a child.

o **Among black teens, personal characteristics and sex-related be-haviors appear to be more important than are family background characteristics in distinguishing teens more likely to have had a child.**

o **Among younger teens, also, personal characteristics (e.g., race and age started dating) and sex-related behaviors (e.g., age at first sex) are better indicators of the likelihood of a teen's being a parent than are family background characteristics (e.g., family income and number of parents at home).**

General Findings

o **Factors contributing to sexual activity and teenage childbearing tend to overlap in the population. Focusing on only one of these factors can lead to overestimating the influence of that single factor.** For example, when a factor such as the family income of the teen is examined by itself, its effect may be overstated because this factor is closely related to the education of the teen's mother, a teen's race, and how many parents a teen lived with—and each of these factors may also be related to a teen's sexual activity.

o **However, certain combinations of factors lead to much greater likelihood that a teen will be sexually active or that she will become a teen parent.** For example, on average, black teens are more likely to be parents than white teens (18 and 5 percent,

respectively). But a white teen whose family income is only half its poverty threshold, whose mother had 8 years of education, who began dating at age 12, who lived with only one parent when she was 14, and who lives in the south has an estimated 25 percent chance of having a baby. In contrast, a white teen whose family's income is four times its poverty level, whose mother has 16 years of education, who began dating when she was 15, and who lived in the northeast with both parents when she was 14 has only a 2 percent estimated chance of having a baby. A black teen with the first, less favorable, set of characteristics would have an estimated 69 percent chance of having a baby. But with the second, more favorable, set of characteristics, a black teen would have an estimated 5 percent chance. 3/

o **The strongest differences among teens appear to be those that differentiate teens who are sexually active from those who are not.** Family background factors in particular appear to play their most important role in identifying teens likely to be sexually active. They are relatively less important (but do still appear to provide some insight) in identifying what age a teen is likely to become sexually active, what her contraceptive patterns may be, and whether a sexually active teen is likely to bear a child.

o **Although on average blacks are considerably more likely to be sexually active and to be parents, blacks with certain characteristics are no more likely and may be less likely to be sexually active and to be parents than some white teens.** For example, (when other related factors are accounted for) black teens whose mothers completed college are no more likely to be sexually active than similar white teens. Black teens who lived with both parents when age 14 are less likely than white teens who lived with only one parent to be sexually active.

o **The disadvantages of certain family and background characteristics may be disproportionately larger for black than for white teens.** For example, compared to having a mother who completed college, having a mother who completed less than high school had a much stronger effect on the likelihood that a black teen would be sexually active than for a white teen. Beginning dating early increased the likelihood that a black teen would become a teenage parent to a much greater extent than was the case for white teens.

o **Although older teens have much greater likelihoods, some specific groups of younger teens are as or more likely to be sexually active or parents than certain older teens.** For example, younger teens who first had sexual intercourse at age 12 are more likely to be parents than older teens who delayed intercourse to age 14.

3/ It is important to note that these figures are estimates based on the statistical models developed in this analysis. These estimated likelihoods reflect the modelled influences of a variety of related factors, and should be interpreted as approximate estimates of patterns of childbearing behavior rather than as precise estimates of actual population characteristics.

CHAPTER 1: POLICY ISSUES AND FACTORS ASSOCIATED WITH TEEN CHILDBEARING

Teens become parents only after passing through a series of steps, or decision points. Before becoming a parent, a teen must make decisions on sexual activity, contraceptive use, abortion, and adoption. The decisions teens make about these activities vary, depending partly on what population groups they are members of; behaviors vary notably by age and race. This chapter provides a policy context for considering the issues and examining the policy importance of these groups and the factors studied in the remainder of the report. The first two sections discuss recent trends in teenage sexual activity and childbearing and why teenage parenting is a particularly important issue for today's society. The last three sections place this analysis of the NSFG into this policy framework. These sections explain why the analysis is structured to account for different stages of teen decisionmaking, for differences among race and age groups, and for the relationships of specific factors to these different decisions.

A. Basic Trends in Teenage Sexual Activity and Childbearing

Teenage childbearing is certainly not a new phenomenon. Rates in the United States have been high for a long time. But in some respects the recent high levels of interest in the issues of teenage sexuality and childbearing might seem paradoxical, since birth rates to 15 to 19 year old women have

actually dropped fairly steadily since at least the 1950s, declining by more than 40 percent just since 1960 (from 89.1 births per 1,000 women aged 15 to-19 in 1960 to 68.3 births in 1970 and to 50.9 births in 1984). These rates vary substantially by race and by the age of the teenager. Among women 15 to 19 the 1984 birth rate was 42.5 for whites compared to 95.7 for blacks. For older teens, aged 18 to 19, the rate was 78.3 (for every 1,000 women aged 18-19), compared to a rate of 31.1 among teens 15 to 17 and 1.2 for teens under age 15. 4/

At the same time that teenage birth rates have been declining, adolescent sexual activity has increased. Whereas in 1971, an estimated 27.6 percent of all never-married girls aged 15 to 19 had experienced sexual intercourse, by 1982, that estimate had increased by more than 50 percent, to 42.2 percent. 5/

B.   The Problems of Teenage Childbearing May Be Greater Than They Used to Be

Despite the declining rates, the problems related to teenage childbearing may be much greater today than in the 1950s and earlier times. Today's young women, on the average, are going to school longer, entering the labor force when they leave school, and staying in the labor force even during their child-bearing years (although they may take a short break around the time of child-birth). In addition, young women today are very likely to spend some time as a single parent. Half of all of today's marriages (not just those of teenage

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4/ National Center for Health Statistics. Vital Statistics of the United States, Natality: 1960; and Advance Report of Final Natality Statistics, 1984. Monthly Vital Statistics Report, v. 35, no. 4, Hyattsville, MD. July 18, 1986.

5/ National Research Council. Panel on Adolescent Pregnancy and Child-bearing. Risking the Future: Adolescent Sexuality, Pregnancy, and Childbear-ing. National Academy Press, Washington, D.C., 1987. p. 42.

mothers) are expected to end in divorce. 6/ Projections suggest that a majority of today's youth will spend some time in single-parent families. A low range projection indicates that 60 percent of children born in 1984 will spend a large part of a year or longer in a one-parent family before reaching age 18. 7/ A higher projection suggests that about 70 percent of white children and 95 percent of black children born in 1980 will spend at least some of their childhood living with only one parent. 8/ Moreover, children born in 1980 to mothers who have never been married are also expected to spend much less of their childhood with two parents (only 14 percent of childhood for whites and 24 percent for blacks) than will children born to married parents (75 percent of childhood for whites and 56 percent for blacks). 9/

As single parents, mothers contribute to the support of their families primarily through their earnings. (More than three-fourths of female-headed families had some wage or salary income in 1984. This is an underestimate because it does not include those families where the mother earned self-employment income.) 10/ Their education and work experience directly contributes to the economic well-being of their families.

Teenage mothers begin their adulthood abruptly. They are more likely to end up as single parents for some time in their lives than their peers who

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6/ Cherlin, Andrew J. Marriage, Divorce, and Remarriage. Harvard University Press, Cambridge, Mass., 1981. p. 25.

7/ Norton, Arthur J. and Paul C. Glick. One Parent Families: A Social and Economic Profile. Family Relations, v. 35, Jan. 1986. p. 16.

8/ Hofferth, Sandra L. Updating Children's Life Course. Journal of Marriage and the Family, Feb. 1985. p. 93-115.

9/ Ibid.

10/ U.S. Bureau of the Census. Money Income of Households, Families, and Persons in the United States: 1984. Current Population Reports, Series p. 60, no. 151. Table 24.

delay childbearing. An increasing share of these teenage women are not married when their first children are born. 11/ In 1984, 56 percent of births to teens were to unmarried women, compared to 24 percent of births to women aged 20 to 24. 12/ Even when they do marry, teenage mothers in particular suffer even greater levels of marital instability than women in general. Although teenage mothers are more likely than others to marry young, they are also more likely to subsequently divorce or separate than their peers who did not have children early, whether or not they marry before their child is born. Estimates indicate that white women who first had a child between the ages of 14 and 17 are three times more likely to separate within 15 years than those who first had children at age 20 or over; for black women the comparable estimate was two-thirds more likely. 13/ In addition, teen mothers are less likely to continue their education 14/ and, consequently, suffer disadvantages in the work place and in their capacity to earn. Thus, the consequences of teenage parenting may be more severe today than ever before. The concern for those young parents is cast within a context of greater demands on women to contribute more and more to the support of their own families.

From a public policy perspective, the problems of teen parenting have very real implications. Teenage mothers are more likely to be dependent on welfare,

11/ O'Connell, Martin and Maurice J. Moore. The Legitimacy Status of First Births to U.S. Women Aged 15 to 24, 1939-1978. Family Planning Perspectives, v. 12, no.1, Jan./Feb. 1980. p. 18.

12/ National Center for Health Statistics. Advance Report of Final Natality Statistics, 1984. Monthly Vital Statistics Report, v. 35, no. 4. July 18, 1986. Tables 2 and 18.

13/ McCarthy, James and Jane Menken. Marriage, Remarriage, Marital Disruption, and Age at First Birth. Family Planning Perspectives, v. 11, no. 1, Jan./Feb. 1979. p. 27.

14/ Hofferth, Sandra L. and Kristin A. Moore. Early Childbearing and Later Economic Well-Being. American Sociological Review, v. 44. Oct. 1979. p. 797-801.

because they attain less education, have larger families, and are less likely to receive child support. 15/ The younger a mother is when she first begins receiving welfare, the more likely she is to receive it for an extended period of time; the average number of years of AFDC receipt for mothers under 22 when they first begin on the program is 8.2, compared to 5.2 for mothers who are over 30 when they begin. 16/ The need for public resources to help support these women is disproportionate to their numbers. In addition, because these women tend to have less education and lower paying jobs if they do work, their contributions to the economy and the society may be reduced from what they would be if they had delayed childbearing.

C. Teens Become Parents after Making a Series of Decisions

Teenage parenting can be thought of as a process; teens actually become parents by making a series of discrete decisions, 17/ whether these are conscious or unconscious. There are four decision points confronting teens on the way to parenthood. First, a teen must decide whether or not to become sexually active. Second, if a teen decides to do so, he or she then must decide whether to use contraception. Teens who use contraception are, of course, much less likely to become pregnant, although in many cases teens who are using either

15/ Moore and Hofferth. Final Research Summary. p. 24-26.

16/ Ellwood, David T. Targeting Would-Be Long-Term Receipts of AFDC. Unpublished paper prepared for the Department of Health and Human Services. Jan. 1986. Table IV-1.

17/ This model for examining the issue of teen childbearing is used widely in other analyses, including Flick, Louise H. Paths to Adolescent Parenthood: Implications and Prevention. Public Health Reports, v. 101, no. 2, 1986. p. 132-147; Moore, Kristin A. and Martha R. Burt. Private Crisis, Public Costs: Policy Perspectives on Teenage Childbearing. The Urban Institute Press, Washington, D.C., 1982; and Danziger, Sandra K. Breaking the Chains: From Teenage Girls to Welfare Mothers, or, Can Social Policy Increase Options?

ineffective methods of contraception or using a method unreliably may also become pregnant. Third, if a teen becomes pregnant, she can decide whether or not she wants to carry the pregnancy to term or to have an abortion. Fourth, if a teen chooses to have the baby, she can decide whether or not to place the baby for adoption. The latter decision, of course, is primarily an issue for unmarried teenage mothers, which raises the issue of marriage and pregnancy. Teens who become pregnant and are not married may also make a decision whether to marry. This structure makes it clear that teenage parenting is not a single issue, but rather builds from a series of complex, interrelated problems. Policy interventions have been proposed for each stage, and together, incremental policies aimed at all stages might comprehensively address the full scope of these problems. Teenage sexual activity and childbearing create a policymaking dilemma in that, although there is general agreement that the issue needs to be addressed, people hold strongly different opinions as to how best to resolve it and what, if any, role the Federal Government should play. Consideration of its complex structure may also clarify that there is room for many incremental approaches to this problem.

This report examines three of the decision points: 1) the initiation of teenage sexual activity, 2) the use of contraception by teens, and 3) teenage childbearing. 18/

D.   What Groups of the Population are Important?

The factors associated with teenage parenting vary for different groups of the population, and the consequences may also be considerably different. In

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18/   Data on teenage pregnancies, which would include those that ended in voluntary abortion or miscarriage as well as in live births, are not available for analysis of this complexity.

particular, groups of interest are defined by age and by race or ethnicity. These distinctions are considered in this analysis of the NSFG.

The consequences of teenage parenting for younger teenagers, those under 17 years old, are much more serious than for older teens, 18 or 19 years old. Very young teens who become parents are less likely to have completed high school and more likely to suspend their education, not to be married, and to become dependent on welfare. As noted above, birth rates for teens 15 to 17 are considerably lower than are rates for older teens. But, complicating the problem, childbearing rates for the younger population have not been declining as fast as for the older population. While birth rates among older teens declined 31.7 percent from 1970 to 1984, those for younger teens declined 19.8 percent. Possible policy interventions for the two age groups of teens also differ in some respects. Younger teens are often still in school, while older teens may no longer be. Older teens are more likely to be married when they conceive or at least before they have the baby. For at least some younger teens, it may be more plausible to intervene earlier in the stages between sexual activity and childbearing, described above. For these reasons, much of the analysis in this report is conducted separately for these two separate age groups.

Large differences among race and ethnic groups in the issues of teenage parenting are also important to understand. Rates of childbearing are much higher in the black than in the white population; Hispanic rates fall in between those of the other two groups. The share of the nation's youth that are black and Hispanic is increasing. Whereas in 1985 15.4 percent of our children under 18 were black and 10.0 percent were Hispanic, by 2000 these shares will be 16.9 and 12.9 percent, respectively. The share of the population that is white (non-Hispanic) will decline from 72.0 to 67.3 percent over this time.

This trend is expected to continue into the foreseeable future. 19/ The civilian labor force is experiencing similar changes in composition. While 12.8 percent of the labor force in 1982 was of black and other races (this does not include white Hispanics, who would make the figures even more disparate), more than 23 percent of the new labor force entrants between 1982 and 1995 are projected to be of black and other races. 20/ The future labor force will draw disproportionately on those groups with the highest rates of teenage parenting. Because of the changing racial composition of the population, it is particularly important today to understand what might be some of the sources of differences among race and ethnic groups.

There is some evidence that teenage parenting may disadvantage blacks to a greater degree than whites. Young black teen mothers are more likely to receive welfare and less likely to leave welfare rolls within a short time than white teen mothers. 21/ For these reasons, where possible, 22/ this report examines the factors associated with teen parenting separately for the non-Hispanic white, non-Hispanic blacks, and Hispanics. 23/

19/ Spencer, Gregory. Projections of the Hispanic Population: 1983 to 2080. Current Population Reports, Series P-25, no. 995., U.S. Bureau of the Census, Washington, D.C., Nov. 1986. Table V.

20/ Fullerton, Howard N. Jr. and John Tschetter. The 1995 Labor Force: A Second Look. Monthly Labor Review, Nov. 1983. p. 5.

21/ Adams, Gina C. The Dynamics of Welfare Recipiency Among Adolescent Mothers. Congressional Budget Office Memorandum, Mar. 17, 1987. Table 1.

22/ In some cases, the sample size is not sufficiently large to allow reliable analysis of the Hispanic population.

23/ For the sake of brevity, for the remainder of the report the terms "white" and "black" will be used. In both cases, however, the analyses have been conducted exclusive of the Hispanic population.

E. What Factors are Important to Study?

This analysis examines a variety of personal and family background factors for their association with teenage sexual activity, contraceptive use, and childbearing. The family background factors include such characteristics as the educational level of a teenager's mother, the poverty status of the teen's family, the number of parents a teen lived with when she was 14, and the extent to which a teen communicates with her parents about pregnancy and contraception. These are factors that indicate characteristics of a teen's parents. Included among the personal background factors are race and ethnicity, the teen's religious denomination and a measure of her religious activity, age of the teen, the age she started dating, her current major activity, whether or not she has had formal sex education, and when she reached sexual maturity. These factors vary according to whether the teen has control over them (reflecting behaviors of the teen) or they are events or conditions that the teen cannot affect (reflecting the teen's family characteristics or other things that may have happened to her).

By examining the relationships of these characteristics to a teen's sexual behavior, separately and together, we can find which seem to be most important and we can identify which of the others appear to be not related at all. Different types of factors may call to mind different types of plausible policy interventions. Short-term plans may be appropriate to deal with some factors such as whether a teen is in school or working or whether she has had formal sex education. For other factors, longer term plans may have to be considered, perhaps even considering the effects of teen childbearing by the current generation of teens on the next generation of teens. Such factors might include the poverty status of a family, a mother's educational level, or whether a teen lives with one or both parents.

The specific characteristics studied in this report were selected not only for their known relationships to teenage behavior or their general public interest, but also because they were the measures available in the NSFG. Another useful way to think of these characteristics is that they serve as proxies for a wider variety of conditions that affect a teenager's formative years, through her family, her community, and her own personal development. Thus, the survey provided very specific factors to study these more general concepts of interest in this study.

For example, the number of parents a teen lived with when she was 14 years old may reflect a variety of conditions of her childhood. It is an important characteristic because it indicates something about the stress a child may have had when her parents separated or if she never had a father in the home at all. It may reflect the fact that children in single-parent families tend to have less involvement with their fathers, since a very large majority of single-parent homes are headed by women. In combination with the current income level of the family, this factor may indicate something about the financial involvement of the father. Since fathers who are providing financial support for their absent children are also thought to be more likely to be emotionally involved with them (and vice versa), the absence of a father may indicate less parental involvement on his part as well as less total parental supervision.

These characteristics have implications for public policy development in the area of teenage sexual activity, contraception, and childbearing. Thinking of each of the characteristics studied in this more detailed manner presents a wider context if policy options are considered. Different approaches may be appropriate for different risk groups and for different aspects of the problem. The report identifies those general characteristics of teens that are associated with particularly high risks of being sexually active, of not using

contraceptives, or of becoming parents. In addition, there are some common themes through most of the stages of teen sexual activity that are also discussed.

CHAPTER 2: TEENAGE SEXUAL ACTIVITY AND AGE AT FIRST SEX

The following three chapters present the findings of detailed analysis using the NSFG data on teenage girls. Included in this analysis are the family background, personal, geographic, and sex-related behavioral factors associated with teenage sexual activity, contraceptive use, and childbearing. For each of these three behaviors, information on the simple relationships between the behavior and the related factors is presented in tables in appendix B.

A more careful analysis can show several important things that a simple examination of relationships between two variables cannot. In a detailed (multivariate) analysis, factors are typically examined together, so that the effects of a single factor can be determined after taking into account the effects of all the other variables in the analysis. 24/

24/ This multivariate analysis can show several differences from simpler relationships between two variables. First, it could show that a variable that appears to be related to another is actually not, because the apparent relationship is actually a result of the two variables being associated with a third (or with a set of other variables). Such would be the case in the example of the following paragraph if the effect of race were no longer important once other variables were taken into account.

Second, it could show that a variable that does not appear to have a relationship in a simple analysis actually does. This would occur, for example, if one variable had an effect on the dependent variable of interest in each category of a third variable, but when those categories are combined (as in simple analysis) the relationship does not show up.

Finally, multivariate analysis can show that the apparent relationship between two variables shown in simpler analysis is not much changed by controlling for other factors. That is, the two variables remain either related or unrelated, as indicated.

As an example, consider the relationship between race and teenage sexual activity. When examined alone, race appears to have a strong relationship with being sexually active. However, how can we be sure that this relationship is not due to other factors, such as the much higher share of black teens living in poorer, single-parent families? By independently taking account of the effects of income and living arrangements (as well as other related variables), or "controlling" for the effects of these other factors, we can identify the specific relationship with race. In the detailed analyses presented in this report, the unique contributions of each variable are studied, taking account of the effects of all the other variables being analyzed.

The results of the detailed analyses are presented in the main text for all teens, white and black teens, 25/ and younger and older teens. 26/ Only those factors determined by the analysis to be statistically significant 27/ were included in the main text. 28/ Other factors included in the analysis (cited at the bottom of each table) but not found to be significant are excluded from these tables.

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25/ The sample size was not sufficiently large to permit this type of analysis for the Hispanic population.

26/ More detailed information on the methods and results of these analyses is available in appendix C.

27/ Differences between groups in this report have been identified as such only if they were "statistically significant." The estimates are based on a sample, which forms only a small portion of the total adolescent population. Differences or relationships are "statistically significant" when the observed difference is sufficiently large that it is highly likely to exist in the total adolescent population (or the particular group being examined) as well as in the sample. If differences between groups or relationships between variables are not large enough to be statistically significant, they are not identified as actual differences in the report.

28/ The tables in appendix B show the simple relationships with all the factors.

While this section only presents the findings from the data, the discussion in chapter 5 synthesizes these findings and examines some of the underlying themes.

A.   Teenage Sexual Activity

The NSFG data indicate that not all teenage women have the same likelihood of being sexually active. Young women from different backgrounds, with different personal characteristics, or living in different types of environments seem to behave differently.   Table B-1 shows simple relationships 29/ between selected characteristics and teenage sexual activity. 30/ The detailed analysis 31/ is discussed in the following subsections.

1. All Teens

The combined effects of the family background, personal, and geographic characteristics were examined first among all teens. The findings showed 47 percent of all teens aged 15 to 19 had ever had sexual intercourse. Teens were

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29/ The relationships are simple in that each characteristic is examined individually; other factors are not accounted for in determining whether a statistically significant relationship exists between each variable and the percent of teens who have had sexual intercourse.

30/ Unfortunately, the National Survey of Family Growth does not provide information about teenagers' or their parents' aspirations, teen's academic performance, self-confidence, perceived ability to control their own lives, or attitudes about early sexual activity. These factors have also been identified as important in determining early sexual activity.

31/ In order to determine the relationships of the family background and personal characteristics to the likelihood that a teen is sexually active, a type of multivariate analysis called logistic regression was used. This method is appropriate to identify the effects of a set of independent variables on the variable indicating whether a teen is or is not sexually active. See appendix C for a technical discussion of this method and the approach used to derive the tables.

more likely to be sexual-activity if their mothers had less education, their families were poor, they lived with one parent at age 14, they communicated more with their parents, they were black, they were not Catholic, they were less committed in terms of religious practice, they were working, they started dating at younger ages, and they lived in the south or west.

a. **Family background.** Two factors that are generally associated with the social and economic background of a family are the parents' educational attainment and their income level. 32/ Because a high share of parenting teens live with their mothers only, this analysis uses educational attainment of the teen's mother. The income to needs ratio measures a family's income in comparison to the poverty level 33/ for a family of the same size and composition; if a family's income is exactly equal to the poverty threshold, the income to needs ratio will be 1.00. If family income is twice the poverty threshold, the ratio will be 2.00, etc.

One way to see the combined effects of the different factors is to see what the estimated effect of a change in a specific variable would be, if none of the other variables changed at the same time; table 1 provides some examples of estimates of these effects for the significant factors identified by the

32/ The education of the teen's mother is a more stable measure of this, because, with very few exceptions, that was a fixed factor at a much earlier time in the teen's life. Different measures of family income level can change from one year to the next, and the measure of income available here (relating family income to a poverty threshold) is measured for the year before the survey. This factor may or may not have been the same through much of the teen's formative years. Thus, it may or may not be related to whether or not a teen has ever been sexually active.

33/ The official poverty thresholds are developed by the Bureau of the Census. They indicate the maximum income levels considered to reflect poverty for families of different sizes and compositions. If the poverty threshold is considered as an indicator of a minimum level of need, a family's income can be divided by its threshold to identify its "income to needs ratio," as an indicator of its level of well-being relative to other families.

TABLE 1. SEXUAL ACTIVITY: Estimated Relative Effects of
Differences in Characteristics a/ on the Likelihood That a Teen
Will be Sexually Active, For All Teens

Characteristic b/	Estimated percent of teens who are sexually active c/ d/
All teens	47
Family background	
Mother's education	
8 years	57
High school	47
College	37
Income to needs ratio	
.50	53
1.00	52
2.00	48
3.00	45
Living arrangements at age 14	
One parent	57
Both parents	42
Communication with parents	
None	41
Some	46
More	51
Personal characteristics	
Race/ethnicity	
White	45
Black	61
Hispanic	41
Religious denomination	
Catholic	42
Not Catholic	50
Degree of religious commitment	
More	37
Less	58

(Table continued on following page.)

TABLE 1. SEXUAL ACTIVITY: Estimated Relative Effects of
Differences in Characteristics a/ on the Likelihood That a Teen
Will be Sexually Active, For All Teens—Continued

Characteristic b/	Estimated percent of teens who are sexually active c/
Major activity	
In school	38
Working	46
Other	76
Age started dating	
12	78
14	58
16	34
Geographic factors	
Region	
Northeast	29
North Central	47
South	55
West	55

Footnotes on following page.

a/   Factors controlled for in the logistic regression analysis were: mother's education, income to needs ratio, living arrangements at age 14, communication with parents, race/ethnicity, religious denomination, degree of religious commitment, formal sex education, major activity, region, and urban/rural.

b/   Explanation of characteristics:
--Mother's education: Educational attainment of the mother of the teenager.
--Income to needs ratio: Ratio of family income in year preceding the survey to official poverty threshold for a family of that size and compositions.
--Living arrangements at age 14: Number of 'parents teenager lived with when she was 14.
--Degree of religious commitment: Teenager designated "more" if she reports attending church at least once a month or, if Catholic, if she reports receiving communion at least once a month.
--Communication with parents: Based on teenagers report of whether she has talked with either or both of her parents about how pregnancy occurs or about methods of birth control. If neither, teen is designated "None;" if one or the other, teen is designated "Some;" if both, teen is designated "More."
--Sex education: Same as "communication with parents," except refers to formal instruction on how pregnancy occurs and methods of birth control.
--Major activity: Current major activity of teenager.
--Age at menarche: Age at which teenager has first monthly period.

c/   Figures shown are examples only to indicate relative effects of changes in values for the variables shown on the probability that a teen aged 15-19 will be sexually active. They do not indicate that a teen with the characteristics shown actually has the probability shown. See text and appendix C.

d/   Because the estimated percentages are based on sample observations rather than observation of the total population of teenagers, it is unlikely that the estimates are exactly the same as what would be observed in the population. However, statistical analysis indicates that in most cases a reasonable range around the estimated values (reflecting the contribution of sampling error to the estimation) would be only a few percentage points. All the values shown for each variable are significantly different from one another.

analysis. (Although only a simple number is shown for each estimate, because they are based on only a sample, all are subject to some uncertainty.)

The table shows the estimated individual effects of these significant factors on the likelihood that an otherwise average teen 34/ is sexually active. It shows, for example, that a teen who is average on all other characteristics but lived with only one parent would have an estimated 57 percent likelihood of being sexually active, compared to an estimated 42 percent likelihood for an otherwise average teen who lived with both parents. This comparison shows the effects of differences among teens based on their living arrangements alone. That living with both parents is also associated with other factors (such as higher income and having mothers with more education) is taken account of to yield this comparison, which separates out the effects of living arrangements from all these other related factors.

A number of other background factors appear to make a very considerable difference in the likelihood that a young woman aged 15 to 19 will be sexually active. Teens whose mothers have less education or whose families have very low income to needs ratios are considerably more likely to be sexually active. And teens who communicate more with their parents are somewhat more likely to be sexually than those who do not. 35/

34/ Because the specific estimates are based on a sample rather than measured for the entire teenage population, there is some variability associated with them. Different samples (of the same size and design) would produce slightly different estimates, merely because they would include different members of the population. Ranges can be calculated to provide an estimate of the range of variability around these estimates. (See footnote d/ of table 1 for further explanation.)

35/ This relationship should be interpreted with great caution, since it may be that teens who are sexually active are more likely to communicate with their parents about these topics; it is not clear from these data whether communication leads to sexual activity, or whether the reverse is the case.

b. <u>Personal characteristics</u>. Personal characteristics are also closely associated with the estimated likelihood that a teen is sexually active. An otherwise average teen who is black is one-third more likely to be sexually active than a similar white teen. Delays in dating are very important; a teen who started dating at age 12 would be nearly two and a half times as likely to be sexually active as a teen who started at age 16. Compared to a teen who is working, an average teen in school is less likely to be active. 36/ The degree of religious commitment is more of a factor in determining the chance a teen will be sexually active than is religious denomination.

c. <u>Geographic factors</u>. Finally, teens from the northeast, even after all other differences in social and economic factors are considered, are less likely to be sexually active than teens from other parts of the country. Teens who live in the south and the west are nearly 90 percent more likely to be sexually active than teens in the northeast.

2. <u>By Race</u>

When whites and blacks are examined separately, not all factors are associated with teen sexual activity for both groups. Among white female teens aged 15 to 19, 44 percent were sexually active, compared to 59 percent of black teens. The general findings discussed in the preceding section should also be found among the white population, simply because of those findings reflect a much greater share of whites in the population than blacks. 37/ As

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36/ Although this variable includes a category for neither working nor being in school, this category is not closely examined in this analysis because in most cases, it reflects teens who are keeping house or on maternity leave.

37/ Because white teens form the majority of all teens, they greatly influence the overall estimates of the associations between these factors and teen sexual behavior in this and the following sections. According to estimates from this sample, 73.2 percent of teens are white, non-Hispanic; this figure is within one percentage point of current estimates by the Bureau of the Census.

table 2 38/ shows, the same relationships between family and personal back-ground factors were found among whites as in the total population. (Table 2, and subsequent text tables presenting the results of detailed analysis, are similar to table 1, showing the unique effects of having different characteristics on the likelihood that a teen will be sexually active.)

Among blacks, however, some differences appeared. While most family background characteristics operated in the same manner, the income to needs ratio did not appear to be important for identifying black teens more likely to be sexually active. Black Catholics did not appear to be significantly less likely than non-Catholics to be sexually active, as was the case with white Catholics. The major activity a young woman was involved in also was not an important factor among blacks.

The factors that were important did not affect whites and blacks to the same degree. For the most part, the factors that affected both blacks and whites seemed to have at least as great and sometimes a much greater effect on the black teens as on the whites, as table 2 shows. For example, for a white teen, having a mother who completed college (compared to one who had only completed 8 years of school) reduced the likelihood of being sexually active by 15 percentage points. But among black teens that difference reduced the likelihood by 39 percentage points. Stated another way, having a less educated mother carried a much more negative effect for the black teens than it did for the white teens.

38/ As indicated for table 1, these estimates are subject to sampling variability. The estimates for this and subsequent tables should be interpreted with the understanding that they represent a point estimated as the best estimate of the true value within a likely range.

TABLE 2. SEXUAL ACTIVITY: Estimated Relative Effects of Differences in Characteristics a/ on the Likelihood that a Teen Will be Sexually Active, by Race of Teen

Characteristics	Estimated percent of teens who are sexually active, b/ by race of teen	
	White	Black
All teens	44	59
Family background		
Mother's education		
8 years	52	75
High school	45	56
College	37	36
Income to needs to ratio		
.50	51	-
1.00	49	-
2.00	46	-
3.00	43	-
Living arrangements at age 14		
One parent	51	72
Both parents	42	44
Communication with parents		
None	37	-
Some	43	-
More	49	-
Personal characteristics		
Religious denomination		
Catholic	39	-
Not Catholic	57	72
Degree of religious commitment		
More	34	52
Less	57	72
Major activity		
In school	35	-
Working	45	-
Other	76	-

TABLE 2. SEXUAL ACTIVITY: Estimated Relative Effects of Differences in
Characteristics a/ on the Likelihood that a Teen Will be Sexually Active,
by Race of Teen--Continued

	Estimated percent of teens who are sexually active, b/ by race of teen	
Characteristics	White	Black
Age started dating		
12	77	89
14	55	73
16	31	49
Geographic factors		
Region		
Northeast	26	-
North Central	47	-
South	50	-
West	58	-

    a/ Factors controlled for in the logistic regression analysis were:
mother's education, income to needs ratio, living arrangements at age 14,
communication with parents, race/ethnicity, religious denomination, degree of
religious commitment, formal sex education, major activity, region, and urban/
rural.

    b/ Figures shown are examples only to indicate relative effects of
changes in values for the variables shown on the probability that a teen aged
15-19 will be sexually active. They do not indicate that a teen with the
characteristics shown actually has the probability shown. See text and
appendix C.

    (See explanation of characteristics in footnote b/ on table 1.)

The same wide difference in response to background differences showed up for teens from different types of families. For black teens, coming from a one-parent family instead of a two-parent family had much greater consequences in terms of greater likelihood of sexual activity than was the case for white teens (28 percentage point increase for blacks, nine points for whites). These differences may indicate that certain social and economic background characteristics may be more strongly associated with differences in behavior in the black than in the white population.

3. By Age Group

The size of the effect of different variables does not seem to vary much with the age of the teen, as table 3 shows. Among female teens age 15 to 17, 32 percent were sexually active, compared to 64 percent of 18 and 19 year-olds. For most significant factors, differences in the characteristics affect the likelihood of being sexually active by about the same number of percentage points for both younger and older teens. However, coming from a one-parent family as contrasted to a two-parent family increases the likelihood that a teen is sexually active about twice as much for younger as for older teens.

Race does not appear as important a factor in determining sexual activity among younger teens as it is among older teens when other factors are also considered. This may indicate that at younger ages, other factors that are considered here play a relatively more important role, whereas at older ages, race and possibly other factors that are not considered here but are closely associated with race are more important. 39/ The income to needs ratio distinguishes

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39/ Examples of other factors that may be important and associated with race but are not considered here might include academic performance and aspirations, occupational aspirations, and peer group attitudes and behavior.

among younger but not older teens in terms of their likelihood of being sexu-
ally active.

TABLE 3. SEXUAL ACTIVITY: Estimated Relative Effects of Differences in
Characteristics a/ on the Likelihood That a Teen Will Be Sexually Active,
by Age of Teen

	Estimated percent of teens who are sexually active, b/ by age of teen	
Characteristic	15-17	18-19
All teens	32	64
Family background		
Mother's education		
8 years	43	71
High school	32	64
College	24	57
Income to needs ratio		
.50	48	-
1.00	44	-
2.00	36	-
3.00	29	-
Living arrangements at age 14		
One parent	43	-
Both parents	28	-
Communication with parents		
None	21	-
Some	30	-
More	42	-
Personal characteristics		
Race/ethnicity		
White	-	62
Black	-	82
Other	-	55
Degree of religious commitment		
More	26	50
Less	43	74
Major activity		
In school	26	51
Working	40	54
Other	54	92

(Table continued on following page.)

TABLE 3. SEXUAL ACTIVITY: Estimated Relative Effects of Differences in
Characteristics a/ on the Likelihood That a Teen Will Be Sexually Active,
by Age of Teen--Continued

Characteristic	Estimated percent of teens who are sexually active, b/ by age of teen	
	15-17	18-19
Age started dating		
12	67	89
14	42	75
16	20	53
Geographic factors		
Region		
Northeast	17	47
North Central	32	62
South	39	73
West	43	69

a/ Factors controlled for in the logistic regression analysis were:
mother's education; income to needs ratio, living arrangements at age 14,
communication with parents, race/ethnicity, religious denomination, degree of
religious commitment, formal sex education, major activity, region, and urban/
rural.

b/ Figures shown are examples only to indicate relative effects of
changes in values for the variables shown on the probability that a teen aged
15-19 will be sexually active. They do not indicate that a teen with the
characteristics shown actually has the probability shown. See text and
appendix C.

(See explanation of characteristics in footnotes on table 1.)

B. Age at First Sex

The previous section examined whether or not teens have ever had sexual
intercourse; this information does not explain characteristics of teens who
begin sexual activity at different ages. Indeed, by combining teens of dif-
ferent ages, that analysis may be somewhat confusing for it does not suggest
how old the different teens were when they began sexual activity. This section

examines the ages at which teens with different characteristics first had sexual intercourse. Unlike the previous section, this analysis can only examine differences among teens who are already sexually active. Data on the simple, uncontrolled relationships between the background factors and age at first sex are presented in appendix table B-2.

Even when these factors are considered jointly, they remain important in determining the age when a teen first had sex. 40/ Again, these statistical analyses were conducted for all teens combined; for younger and older teens; and for white and black teens. 41/

The combined findings from the preceding section on teenage sexual activity and those presented below suggest that the effects of family and personal characteristics are quite substantial in determining whether or not a teen engages in sexual activity. Among sexually active teens, the relationships among the background characteristics and the age a teen first had sexual intercourse are also important, but the strength of these relationships may be slightly less.

1. All Teens

Overall, female teens aged 15 to 19 first had sex at an average age of 15 and a half. When all teens are examined together as a group, the importance of many of the variables for explaining differences in age at first sex is masked. This statistical result likely occurs because the background factors are related to different age groups and race and ethnic groups in ways that vary

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40/ This analysis of age at first sex used a method called ordinary least squares regression to estimate the effects of each of these variables on the age when a teen first had sexual intercourse. Only teens who had ever had sex were included in this analysis. See appendix C for a technical discussion of this method and the approach used to construct the tables.

41/ For simplicity of presentation, the table is presented only for the analysis by age group.

within each group. Overall, the analysis shows that the most important factors associated with younger age at first intercourse among sexually active teens are beginning dating at younger ages, living with only one parent at age 14, being black or Hispanic, having reached sexual maturity at a young age, living in the west or the south, not having had some formal sex education about pregnancy or contraception, 42/ and lower degrees of religious commitment.

2. By Race

When white and black teens were studied separately, the importance of several of the factors was substantially reduced. This result might indicate that other factors associated separately (but not accounted for in this analysis) with either whites or blacks may be more important in determining age at first sex than the factors examined in this study. Thus, on the basis of the factors studied, differences among members within each of these groups are not so evident. Nevertheless, some factors remained important in identifying teens who are more likely to begin sexual activity at earlier ages.

On average, white teens first had sexual intercourse at about age 15.7, compared to age 15.1 among blacks. Among white teens, those living with one parent only are likely to have begun sexual activity about four-tenths of a year earlier than their peers living with both parents, but this factor was not significant among black teens.

Personal background factors were important for both blacks and whites. Each year's difference in beginning dating was associated with about a third of

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42/ As with the parental communication factor above, this relationship must be interpreted with caution. It is not clear from these data whether teens who have had sex education before some specific age are more or less likely to be active in comparison to their peers. Teens in the sample who reported both that they have had sex education and that they are sexually active may have had the education either before or after their activity. Thus, the nature of the relationship (or lack thereof) between these two variables is somewhat tenuous.

a year's delay in age at first sex for both white and black sexually active teens. Black teens who were in school were likely to have first had sex later than either those who were working or those engaged in some other major activity, but this factor was not significant among white teens. White teens living in the northeast (but not blacks) were likely to have first had sex at later ages than their peers living in the south or the west. Black, but not white, teens who indicated greater degrees of religious commitment were likely to have first had sex at somewhat later ages. Finally, in both race groups, teens who reached sexual maturity earlier tended to begin sexual activity earlier.

3. By Age Group

Not all factors that are important for older teens in determining the age a teen first has intercourse are important for younger teens. Table 4 shows the relationship of background variables (shown in the analysis to be associated with age at first sex for sexually active teens) to age at first sex in the two different age groups. The figures shown in this table indicate the estimated mean age at first sex for teens with specified characteristics. These estimates assume the teens are average with respect to all other characteristics included in the analysis. As with the tables on the likelihood that a teen is sexually active, these estimates are of the unique contribution of each factor. For example, consider two teens who are average on all the other factors accounted for in this analysis, but one lives with one parent and the other with both parents. Living with both parents at age 14, as compared to only one parent, is associated with about a third of a year's delay in first sex among both younger and older sexually active teens.

The average age at which younger teens first had sex was 14.8, compared to 15.9 among older teens. Among younger teens, those who lived with one parent

at age 14, communicated less with their parents, started dating at an earlier age, were in school rather than working, had no formal sex education, reached sexual maturity earlier, and were Hispanic or black were more likely to have first had sexual intercourse at an earlier age. Among older teens, with the exception of the level of communication with parents and exposure to formal sex education, the same factors were important; in addition, the degree of religious commitment was associated with when older teens had first had sex.

TABLE 4. AGE AT FIRST SEX: Estimated Effects of Characteristics a/ on
Age at First Sex Among Sexually Active Teens,
by Age of Teen

Characteristic	Estimated age at first intercourse, by age of teen	
	15-17	18-19
All teens	14.8	15.9
Family background		
Income to needs ratio		
.50	14.9	15.8
1.00	14.9	15.9
2.00	14.8	15.9
3.00	14.7	16.0
Living arrangements at age 14		
One parent	14.6	15.8
Two parents	14.9	16.1
Communication with parents		
None	14.5	-
Some	14.7	-
More	14.9	-
Personal characteristics		
Race/ethnicity		
White	15.0	16.1
Black	14.6	15.4
Hispanic	14.2	15.7
Degree of religious commitment		
More	-	16.2
Less	-	15.8
Sex education		
None	14.5	-
Some	14.7	-
More	14.8	-
Major activity		
In school	14.6	16.2
Working	15.0	15.9
Other	14.6	15.7

(Table continued on following page.)

TABLE 4. AGE AT FIRST SEX: Estimated Effects of Characteristics a/ on
Age at First Sex Among Sexually Active Teens,
by Age of Teen—Continued

| Characteristic | Estimated age at first intercourse, by age of teen | |
	15-17	18-19
Age started dating		
12	14.1	15.1
14	14.7	15.7
16	15.3	16.3
Age at menarche		
11	14.5	15.7
13	14.9	16.0
15	15.3	16.3
Geographic factors		
Region		
Northeast	-	16.4
North Central	-	15.9
South	-	15.9
West	-	15.8

a/ Factors controlled for in ordinary least squares regression analysis
were: mother's education, income to needs ratio, living arrangements at age
14, communication with parents, race/ethnicity, religious denomination, degree
of religious commitment, sex education, major activity, age started dating, age
at menarche, region, and urban/rural.

(See explanation of characteristics in footnotes on table 1.)

CHAPTER 3: TEENAGE USE OF CONTRACEPTIVES

After a teen decides to become sexually active, her second decision point on the path to becoming a teenage parent is whether or not to use contraceptives. The preceding chapter showed important relationships between personal and family background characteristics and two aspects of teen sexual activity: whether or not a teen becomes sexually active and if so, at what age. This chapter examines whether these same factors and a few additional factors that may be associated are related to two aspects of teenage contraceptive use: 1) whether or not a sexually active teen is a current user of contraceptives and 2) if so, whether she and her partner use a medical or a non-medical type of contraceptive.

It is clear that teens who use contraceptives are less likely to bear a child, although that relationship is not a totally dependable one. Many other factors that cannot be examined here impinge on that connection. People do not all use contraceptives with the same degree of care or reliability. In addition, a significant share of teens do not use the more reliable methods of contraception; these methods, called "medical" methods in this report (because one must see a physician to obtain them), are primarily the pill, the diaphragm, sterilization, and IUDs. Teens (as well as women of all ages) use the pill less frequently today as the primary preferred method of birth control. But while older women are turning to sterilization, younger women, wanting at some point to raise a family, appear to be turning to less permanent methods which

also have a relatively greater risk of contraceptive failure. These non-medical methods include condoms, rhythm, foam or jelly, and withdrawal, among others.

Appendix table B-3 suggests that there are limited differences in teen use of contraceptives and of medical methods associated with the background factors examined. More detailed analysis supports the preliminary findings that few of the family and personal background variables are associated with whether or not a teen uses contraceptives or with the type of contraceptives she uses. The more important factors appear to be those relating to sexual and medical behavior.

However, the statistical models used to identify the relationships among these factors and teenage contraceptive use do not explain enough of the differences among teenagers to be considered as providing reliable perspectives of what leads to differences in contraceptive use. 43/ This analysis, therefore, does not provide much insight into what leads some teens to use contraceptives and others not to. For this reason, only the results for all teens are discussed here (and no tables are presented), with the understanding that these findings are only of general use to indicate types of factors that might be related to teen contraceptive use.

A. All Teens

In general, the only factors that showed any relationship to teenage use of contraception were those related to a teenagers sexual activity. Teens who have consulted with doctors or other trained personnel about contraceptives, who used contraception the first time they had sexual intercourse, who have intercourse more frequently, who first had intercourse at later ages, or who have already had a baby are more likely to be using contraceptives on a current

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43/ See appendix tables C-3 and C-4 for the results of these analyses.

basis. The factors that seemed associated with more probable use of medical methods were having consulted medical sources on contraception and more frequent sexual intercourse.

CHAPTER 4: TEENAGE CHILDBEARING

Differences among teens who actually become parents are the combined re-sult of differences among teens at each of the prior stages of decision-making that lead to parenthood: sexual activity, contraception, and abortion. Thus, although the differences in contraceptive behavior of subgroups of sexually active teens are not clear, because of differences in shares of teens who are sexually active and who choose voluntary abortion, 44/ there are considerable differences among teens who become parents.

Two ways of examining parenting teens might yield different portraits of what groups of teens are most likely to be parents. First, examining all teens provides a sense of how the background characteristics and different behaviors of teens lead to observed differences in parenthood in the entire adolescent population. Second, examination of only the population actually at risk of bearing a child--that is, the sexually active population--provides a sense of what distinguishes among teens who are all already engaging in risk-taking be-havior, but not all of whom will become parents. Appendix table B-4 shows the percentages of teens with different characteristics who are parents; the infor-mation is provided for younger and older teens among both populations: all teens and just those who have had sexual intercourse.

44/ However, as noted earlier, the data used for this analysis do not permit analysis of abortion because reporting of pregnancies terminated by abortion was incomplete in the survey. Comparison with independent records showed the survey results would substantially underestimate the number of abortions nationally. See appendix A for more detail.

A.   <u>All Teens</u>

Table 5 suggests that the factors that are important for identifying teens who are likely to be parents are not all important when only sexually active teens are examined. According to the survey estimates, 8 percent of all teens aged 15 to 19 have had a baby, but 18 percent of sexually active teens have borne a child.

Among all teens, those whose families have low income to needs ratios, who come from single-parent families, and who do not communicate with their parents about pregnancy or contraceptives are substantially more likely to be parents. Among personal background characteristics, most are important. Black and Hispanic teens are more likely than white teens to be parents. Teens who started dating early, who first had sexual intercourse early, who experienced early physical maturity, who are currently married, or who are engaged in some major activity other than work or school (e.g., homemaking) are more likely to be parents.

But if only those teens who are sexually active are studied, several factors are not important, indicating that they are more important in identifying teens who are likely to be sexually active than in subsequently identifying those more likely to be a parent. Whether a teen lived with one or both parents, when she started dating, and when she reached physical maturity do not distinguish different likelihoods of parenthood among sexually active teens. The age at which a teen first had sexual intercourse, however, is very important; those who first had sex at age 12 are estimated to be nearly twice as likely to be a parent as those who first had sex at age 14.

TABLE 5. TEEN CHILDBEARING: Estimated Relative Effects of Differences in Characteristics a/ on Likelihood that a Teenager is a Parent: All Teens and Teens Who Have Had Sexual Intercourse

	Estimated percent of teens who are parents	
Characteristics	All teens	Teens who have had sexual intercourse
All teens	8	18
Family background		
Income to needs ratio		
.50	14	25
1.00	12	23
2.00	9	19
3.00	7	15
Living arrangements at age 14		
One parent	13	-
Both parents	7	-
Communication with parents		
None	14	29
Some	9	20
More	6	13
Personal characteristics		
Race/ethnicity		
White	6	12
Black	33	43
Hispanic	18	34
Major activity		
In school	8	16
Working	5	9
Other	34	47
Age started dating		
12	17	-
14	11	-
16	6	-
Age at menarche		
11	12	-
13	7	-
15	5	-

TABLE 5. TEEN CHILDBEARING: Estimated Relative Effects of Differences in Characteristics a/ on Likelihood that a Teenager is a Parent: All Teens and Teens Who Have Had Sexual Intercourse—Continued

Characteristics	Estimated percent of teens who are parents	
	All teens	Teens who have had sexual intercourse
Marital status		
Never married	7	12
Ever married	56	61
Age at first sex		
12	n/a	60
14	n/a	34
16	n/a	14
Current age		
15	1	1
17	10	15
19	25	32
Geographic factors		
Region		
Northeast	4	-
North Central	11	-
South	10	-
West	9	-

a/ Factors controlled for in the logistic regression analysis were: mother's education, income to needs ratio, living arrangements at age 14, communication with parents, race/ethnicity, religious denomination, degree of religious commitment, sex education, major activity, age started dating, age at menarche, region, urban/rural, marital status, and (for sexually active teens only) age at first sex, use of contraceptives at first sex, number of children wanted.

(See explanation of characteristics in footnotes on table 1.)

B. **By Race**

Black teens are more likely to have had a baby than white teens; among all teens, 18 percent of black teens and 5 percent of white teens have had a baby.

Among sexually active black and white teens, these figures were 30 and 11 percent, respectively. As shown in earlier sections of this report, factors that distinguish among white teens are not necessarily those that distinguish among black teens, and that remains the case for this analysis. The same factors discussed in table 5 appear to be important in identifying white teens who are likely to be parents. Among black teens, though, family background data do not explain differences in likelihood to be parents, as shown in table 6; personal characteristics play a much more significant role. Among these, the age at which a teen started dating appears to be most important; black teens who started dating at age 12 are more than three times as likely to be a parent as those who started at age 16. Black teens who are still in school are much more likely to be parents than those whose current major activity is working. Black teens who are currently married are more likely to be parents, but this factor is more likely a result of teen parenting than a causal factor.

C. By Age Group

Older teens are considerably more likely to have had a baby than younger teens; only 3 percent of younger teens were parents, compared to 14 percent of older teens. Among sexually active teens, though, the relative difference narrows; 10 percent of younger sexually active teens have had a baby, compared to 22 percent of older teens. In contrast to the case for older teens, it is more difficult to identify what groups of younger teens are more likely than others to be parents. Family background factors, while very important among older teens, as shown in table 7, do not by themselves indicate significant differences among the likelihoods that different groups of younger teens will be parents. Among older teens, those whose families have lower income to needs ratios, who come from single parent families, and who communicate less with their parents are much more likely to be parents. Personal characteristics do dis-

tinguish among groups of both younger and older teens that are more or less likely to be parents. Teens who are black, who started dating earlier, who reached physical maturity earlier, and who are married are much more likely to be parents.

Among both younger and older teens who are sexually active, as the table also shows, the same factors are important, with the exceptions that the age when a teen started dating and the age at which she reached physical maturity are not associated with any differences in the likelihood that a sexually active teen is a parent.

TABLE 6. TEEN CHILDBEARING: Estimated Relative Effects of Differences in
Characteristics a/ on Likelihood that a Teenager is a Parent for
All Teens Who Have Ever Had Sexual Intercourse, by Race of Teen

| | Estimated percent of teens who are parents | | | |
| | All teens | | Teens who have had sexual intercourse | |
Characteristics	White	Black	White	Black
All teens	5	18	11	30
Family background				
Income to needs ratio				
.50	-	-	-	-
1.00	-	-	-	-
2.00	-	-	-	-
3.00	-	-	-	-
Living arrangements at age 14				
One parent	11	-	19	-
Both parents	4	-	8	-
Communication with parents				
None	10	-	25	-
Some	6	-	14	-
More	3	-	7	-
Personal Characteristics				
Age started dating				
12	-	46	-	-
14	-	27	-	-
16	-	13	-	-
Major activity				
In school	4	20	10	35
Working	3	5	6	10
Other	35	36	48	46
Age at menarche				
11	12	-	22	-
13	4	-	9	-
15	1	-	3	-

(Table continued on following page.)

TABLE 6. TEEN CHILDBEARING: Estimated Relative Effects of Differences in Characteristics a/ on Likelihood that a Teenager is a Parent for All Teens Who Have Ever Had Sexual Intercourse, by Race of Teen—Continued

| | Estimated percent of teens who are parents | | | |
| | All teens | | Teens who have had sexual intercourse | |
Characteristics	White	Black	White	Black
Marital status				
Never married	4	17	7	27
Ever married	58	68	61	81
Age at first sex				
12	n/a	n/a	51	75
14	n/a	n/a	25	46
16	n/a	n/a	10	19

a/ Factors controlled for in the logistic regression analysis were: mother's education, income to needs ratio, living arrangements at age 14, communication with parents, race/ethnicity, religious denomination, degree of religious commitment, sex eduction, major activity, age started dating, age at menarche, region, urban/rural, marital status, and (for sexually active teens only) age at first sex, use of contraceptives at first sex, number of children wanted.

(See explanation of characteristics in footnotes on table 1.)

TABLE 7. TEEN CHILDBEARING: Estimated Relative Effects of Differences in
          Characteristics a/ on Likelihood that a Teenager is a Parent,
          For All Teens and Teens Who Have Ever Had Sexual Intercourse,
          by Age of Teen

| | Estimated percent of teens who are parents | | | |
| | All teens | | Teens who have had sexual intercourse | |
Characteristics	15-17	18-19	15-17	18-19
All teens	3	14	10	22
Family background				
Income to needs ratio				
.50	-	22	-	31
1.00	-	20	-	29
2.00	-	16	-	24
3.00	-	12	-	19
Living arrangements at age 14				
One parent	-	21	-	-
Both parents	-	12	-	-
Communication with parents				
None	-	27	-	38
Some	-	16	-	24
More	-	9	-	14
Personal characteristics				
Race/ethnicity				
White	2	10	6	16
Black	14	44	28	49
Hispanic	6	31	14	47
Major activity				
In school	-	12	-	17
Working	-	9	-	13
Other	-	46	-	51
Age started dating				
12	10	27	-	-
14	4	18	-	-
16	2	12	-	-

(Table continued on following page.)

TABLE 7. TEEN CHILDBEARING: Estimated Relative Effects of Differences in
Characteristics a/ on Likelihood that a Teenager is a Parent,
For All Teens and Teens Who Have Ever Had Sexual Intercourse,
by Age of Teen—Continued

| | Estimated percent of teens who are parents | | | |
| | All teens | | Teens who have had sexual intercourse | |
Characteristics	15-17	18-19	15-17	18-19
Age at menarche				
11	5	19	-	-
13	3	14	-	-
15	1	10	-	-
Marital status				
Never married	3	10	8	14
Ever married	36	68	50	67
Age at first sex				
12	n/a	n/a	66	67
14	n/a	n/a	20	43
16	n/a	n/a	3	22
Geographic factors				
Region				
Northeast	-	6	-	-
North Central	-	18	-	-
South	-	19	-	-
West	-	16	-	-

a/ Factors controlled for in the logistic regression analysis were:
mother's education, income to needs ratio, living arrangements at age 14,
communication with parents, race/ethnicity, religious denomination, degree of
religious commitment, sex education, major activity, age started dating, age at
menarche, region, urban/rural, marital status, and (for sexually active teens
only) age at first sex, use of contraceptives at first sex, number of children
wanted.

(See explanation of characteristics in footnotes on table 1.)

CHAPTER 5: DISCUSSION

.   This chapter synthesizes the findings from this analysis of the NSFG on factors associated with three types of teenage behavior were examined in this report: 1) sexual activity, 2) contraceptive use, and 3) childbearing. Four types of factors were considered in identifying characteristics of teens that might discriminate among teens with respect to these behaviors: 1) family background characteristics, 2) personal characteristics, 3) geographic factors, and 4) sex-related behavioral factors.

A.   General Findings

First, the effects of the factors studied on the likelihood that a teen is sexually active, when she first had intercourse, whether she uses contraceptives and what type, and whether she has given birth may be overstated when they are examined one at a time. When all factors are considered together, the effect of each factor is typically less than that shown when they are considered separately. 45/ The greater likelihood indicated by the simple cross-tabulation results from the fact that different factors tend to be combined in individual teens. For example, the likelihood is high that teens who have relatively low family incomes may also have mothers with less education and live in one-parent families. By separating out the combinations of factors,

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45/ This finding stems from comparing the frequencies in the table in appendix B for each set, which provides simple cross-tabulations, to the estimates in the tables in the main text, which provide the results of more detailed analysis.

the analyses that consider all factors together provide estimates of the independent effects of each factor.

These results suggest that certain combinations of factors lead to much greater likelihoods that a teen will be sexually active or that she will become a teen parent. Teens who show a greater likelihood on the basis of one factor (but have more fortunate characteristics as far as other factors are concerned) have reduced likelihoods compared to teens who share a number of disadvantageous traits. For example, consider the effect on an average teen of being black, as compared to white, on the likelihood that she will have ever had a baby. Table 6 showed that a black teen was more than three times as likely as a white teen to be a parent (18 and 5 percent, respectively). But, a black teenager whose family income is only half of its poverty threshold, whose mother had 8 years of education, who began dating when she was 12, who lived with only one parent when she was 14, and who lives in the south had an estimated 69 percent chance of having a baby. 46/ A white teen with the same set of characteristics would have an estimated 25 percent chance of having a baby. In contrast, a black teen with more advantageous characteristics—whose family's income is four times its poverty level, whose mother has 16 years of education, who began dating when she was 15, who lived with both parents in the northeast—had only a 5 percent estimated chance of having a baby. A white teen with this set of characteristics would have a 2 percent estimated chance of having a baby.

None of the individual characteristics examined alone would indicate such radically different probabilities. In combination, it appears that each additional disadvantageous factor contributes increasingly to the likelihood that a teen will become a parent. The detailed analyses suggest that teens who have

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46/ Estimated using the full model of coefficients estimated separately for black and white teens on the likelihood that a teen has ever had a baby. These are the same estimates used to construct table 6.

generally more advantageous backgrounds but perhaps have one disadvantageous characteristic may not be as likely to become parents (or sexually active, etc.) as a simple examination of the chances based on that factor alone might indicate.

Second, the strongest differences among teens appear to be those that differentiate teens who are sexually active from those who are not. Family background factors 47/ are associated to a greater extent with whether or not a teen has ever had sexual intercourse than they are with the age at which she first has intercourse or with her contraceptive practices.

The greater strength of the relationship with sexual activity than with other aspects of teen sexuality might indicate that, for the issue of teen childbearing, these types of factors have primary importance in their association with early sexual activity. The decision to be sexually active is substantially more common among teens whose mothers have less education, whose families have incomes closer to the poverty threshold, and who lived with only one parent for at least a portion of their formative years. Once that decision is made, however, these factors are less important in determining precisely at what age a teen first has intercourse, whether she uses contraceptives, and, if so, what type she uses. Determinants of subsequent sexual behavior may stem from sources other than their family background. For example, personal goals for education or employment and attitudes towards early childbearing may be more important. These other sources of differences among teens in the use of contraceptives are probably factors that affect the likelihood that a teen uses contraceptives the first time she has sex, whether she has ever consulted with a doctor or other trained person on contraception, and the frequency of her

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47/ Such as the education of the teen's mother, the relationship of the family's income to the poverty threshold, how many parents the teen lived with when she was 14, and the communication within the family about pregnancy and contraception.

sexual activity. These factors were shown in the analysis to be related to the likelihood that a teen uses contraceptives and, to a lesser extent, whether she uses medical methods of contraception.

Family background characteristics are also strongly associated with whether or not the teen has ever had a baby, but part of that association is a result of the fact that only sexually active teens have babies and family background characteristics provide much information about which teens are likely to be sexually active. When only sexually active teens are examined, the strength of the association between family background and bearing a child is substantially less than when all teens are studied. In addition, there is one decision point in the process leading to teen parenthood that this analysis could not examine: voluntary abortion. There is evidence that teens from families with higher educational levels are more likely to obtain an abortion if they become pregnant before marriage. 48/ The lesser likelihood of teens from families with relatively higher income and education and from two-parent families to bear children, then, may be the result of a combination of their lower likelihood of being sexually active and their greater likelihood of obtaining an abortion if they do become pregnant.

Third, family background factors are not related in the same manner to all of the behaviors discussed in this analysis. For example, teens who communicate more with their parents are more likely to be sexually active, but less likely to become parents. Teens whose mothers have more education are less likely to be sexually active and more likely to use some form of contraceptive, but less likely to use the more reliable medical methods. These and other differences indicate that the behaviors leading up to teenage parenthood are not necessarily all predictable for different groups of teens, because they are not necessarily all consistent patterns of behavior.

48/ Zelnick, Melvin, John F. Kantner, and Kathleen Ford. Sex and Pregnancy in Adolescence. Sage Publications, Beverly Hills, 1981.

Fourth, personal characteristics of teens 49/ follow a similar pattern to the family background characteristics, in that they are primarily important for identifying whether or not a teen is sexually active. However, some of these factors are important as an indication of the age a teen first had intercourse. Black and Hispanic teens, teens who started dating earlier, who have not had any formal sex education, and who reached physical maturity at younger ages are all more likely to have first had sex at earlier ages. Although they do not appear very important in association with contraceptive use, these factors also are important for identifying those who are more likely to become teenage parents.

Finally, factors related to a teen's sexual behavior 50/ are most important in identifying teens who are more likely to be using contraception and to be using a medical method. With the one exception that teens who first had intercourse at younger ages are more likely to have given birth, these factors do not appear to add to our understanding of the factors that affect teen childbearing.

B.   Findings About Race and Ethnicity

Teens of different race and ethnic groups have different likelihoods of being sexually active and of giving birth. White teens are least likely to be sexually active or to have a child; black teens, the most likely; and Hispanic teens fall in between. However, as this analysis has shown, the factors that are related to sexual activity and parenting are not the same for the different

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49/ Such as race, religious denomination and degree of religious commitment, formal sex education, major current activity, age started dating, and age at maturity (menarche).

50/ Such as the age at which she first had sexual intercourse, whether she used contraception at first intercourse, whether she has ever consulted for medical advice on contraception, how frequently she has intercourse, and the number of children she has previously had.

race groups. While family background and personal characteristics appear to be quite important factors among white teens, there are fewer relationships with these factors for black teens.

There are several possible reasons why this might be the case. First, there may be less variation in combinations of characteristics of the black than of the white population. Thus, when factors such as the mother's education and the number of parents a teen lived with when she was 14 are accounted for, other factors (such as the family income relative to the poverty threshold) do not independently contribute any more to our understanding of these different behaviors. Second, specifically for the black population--or for both populations--there may be other factors that are more important in their relationships with these behaviors. Such factors might include such things as school and community environment or personal and peer attitudes towards teen pregnancy and childbearing.

Nevertheless, two important generalities emerge from the analyses based on race. The first is that within both the black and the white teen populations there are large differences in the behaviors studied. Although on average blacks are considerably more likely to be sexually active and to be parents, blacks with certain characteristics have likelihoods that are no greater or considerably less than some whites. Thus, black teens whose mothers completed college are no more likely to be sexually active than similar white teens. Those whose mothers completed high school are about as likely as white teens whose mothers completed only elementary school to be sexually active. Black teens who lived with both parents when age 14 are less likely than white teens who lived with only one parent to be sexually active. And black teens who started dating at age 14 may be less likely than white teens who started dating at age 12 to be active. 51/ Because of the strong relationships between race

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51/ See table 2 for data supporting these conclusions.

and teenage sexual behavior, the issue of race cannot be easily dismissed. However, these findings indicate that other factors besides race are very important in identifying teens who are likely to be sexually active and to be teen parents.

Second, the effects of some factors appear to be greater on black teens than on white teens. As noted in the preceding paragraph, both black and white teens whose mother finished college had about the same likelihood of being sexually active. But the effect of having a mother who completed less school was much greater for the average black teen than for the average white teen. Having a mother who completed only 8 years of school more than doubled the likelihood that a black teen would be sexually active (compared to having a mother who had completed college), while it increased the likelihood by about 40 percent for white teens. Living with only one parent had a similarly disproportionate effect on the average black teen, increasing her likelihood of being sexually active by about two-thirds, compared to an increase of about one-fifth for white teens. 52/ Similarly, the age at which a teen started dating is significant in identifying teens who are likely to be parents, among both black and white teens. Black teens who began dating at age 12 are more than three and one-half times more likely to be parents than those who began dating at age 16. But white teens who began dating at age 12 are only two and one-half times more likely than those who began at age 16 to be parents. 53/ These findings may indicate that, in terms of teenage sexual activity, the disadvantages of certain family and personal background characteristics are disproportionately large for black teens.

Although detailed analysis was not possible for Hispanic teens (because of inadequate sample size), the frequencies of their behaviors indicate that they

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52/ See table 2.

53/ See table 6.

are considerably different from both whites and blacks in their sexual behavior. Hispanic teens are less likely than black teens (but more likely than white teens) to be sexually active. Younger Hispanic teens are actually not very different from younger white teens in the percent who have had sexual intercourse, while older Hispanic teens fall clearly in the middle between white and black teens. However, younger Hispanic teens are much less likely than either white or black teens to use any form of contraception, and if they do use any, they are much less likely than either blacks or whites to use a medical method. As a consequence, younger Hispanic teens are considerably more likely to be parents than white teens, and older Hispanic teens are more likely than either white or black teens to be parents. Among sexually active older teens, more than half of the Hispanics are parents, compared to slightly more than one-third of blacks and less than 15 percent of white teens. 54/

C.   Findings About Younger and Older Teens

Although younger teens are less likely than older teens to be sexually active, they are also somewhat less likely to use contraception. In combination, these facts might raise the relative likelihood that a younger sexually active teen would be a parent. In fact, a somewhat smaller share of sexually active younger than older teens are parents. This might, again, be a result of younger teens' being more likely to resolve pregnancies by abortion. 55/

Family background factors appear to be closely related to the likelihood that either a younger or an older teen is sexually active and to the age at which a teen first has sexual intercourse. Among younger teens, these factors do not provide significant indications of which teens are more likely to be parents. This is probably due to the very small likelihood that a younger teen

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54/   See tables B-1, B-3, and B-4.

55/   Zelnick, Kanter, and Ford. Sex and Pregnancy in Adolescence. p. 260.

is a parent; very few factors can clearly identify groups at greater risk of parenting when so small a share are parents. By the time teens become older, however, the relationship between background factors and teen parenting appears stronger. 56/

Nevertheless, it appears that some younger teens are at equal or higher risk of being sexually active than certain older teens. For example, younger teens who began dating very early are more likely to be sexually active than older teens who delayed dating. And younger teens in the west are nearly as likely as older teens in the northeast to be sexually active.

Also, as is the case with the analysis for race, although younger teens in general are much less likely to be parents, there are particular groups of these younger teens who are at very high risk of being parents. Younger teens who first had sexual intercourse at age 12, for example, have a higher estimated likelihood of being parents than older teens who delayed first sex to age 14. Even younger teens who began dating very early are nearly as likely to be parents as older teens who did not start dating until later. And younger black teens are more likely to be parents than older white teens.

56/ See tables 3, 4, and 7.

CHAPTER 6: CONCLUSIONS

The findings of this analysis are complex, reflecting the complexity of teenage sexual activity and childbearing. This report has attempted to disentangle the web of family and personal background factors that are associated with different aspects of teen parenting to help identify what groups of the population are more at risk of becoming teen parents and to compare the risks among different groups. Although some studies do indicate that attitudes and aspirations of teens affect their behaviors, this analysis suggests the policy importance of addressing social and economic background characteristics.

The findings from the National Survey of Family Growth suggest that different groups of teens exhibit very different rates of the various behaviors examined. Older teens are more likely to be sexually active and more likely to be parents than younger teens. The analysis showed, however, that among younger teens personal factors--possibly related to peer influences--may be more important in identifying teens likely to be parents than are family background factors. Black teens are also more likely to be parents than white teens. Among older teens, family background factors appeared to be more important. Among black teens, relatively few of the factors examined here appeared to explain important differences among different groups of teens, but those that were important accounted for a substantial amount of the variation.

Family background factors are important in identifying teens who are likely to be sexually active, and, therefore, those who are more likely to become teen parents. These types of factors are generally not able to be

changed in the short-term; circumstances cannot easily be changed for teens today whose mothers did not complete high school, whose families have relatively lower incomes, or who lived with only one parent when they were 14. But the very considerable importance of these factors suggests they will play a role for the next generation of teens, whose parents are going to school today and will shortly be entering the labor market and raising their own families.

APPENDIX A: DATA SOURCES

This study used the National Survey of Family Growth Cycle III, conducted by the National Center for Health Statistics, as the primary source of data. The survey was conducted in 1982 using a sample of 7,969 women from ages 15 to 45. Both teenagers and black women were over-sampled, so that there is a large sample of teens for this analysis, permitting better measurement of the relationships among different variables.

The survey inquired extensively about women's personal and family characteristics, sexual activity, contraceptive use, and record of pregnancies and births. Although comparisons with independent administrative data show the reporting on births to be complete, the record of pregnancies has been found to be incomplete. Apparently women tended not to report abortions they had ever had, so the total number of abortions in the survey is only about half the number estimated by independent sources. 57/ Thus, this survey is inadequate for the study of teenage pregnancy, but serves well as a data source to study teenage sexual activity, contraceptive use, and childbearing.

The sample provided 1,888 young women aged 15 to 19. Of these 1,114 were white; 561, black; and 167, Hispanic. Of the total teen sample, 939 were aged 15 to 17 and 949 were aged 18 or 19.

There were some important limitations of this data base for use in this study. First, the sample size did not permit reliable analysis of all the

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57/ Personal communication of the author with staff of the National Center for Health Statistics.

populations of interest. In particular, the Hispanic sample was not sufficiently large to permit separate detailed analysis. Second, some of the variables could not be related in precise time sequence to the sexual activities being examined. For example, although it is of interest to know whether a family's economic circumstances affect a teen's sexual activity, the best measure of economic well-being in the survey was family income for the year preceding the survey. This was used in the analysis, and appeared to be closely related to a number of outcomes. But a better measure would have reflected the income of the family while the child was growing up, before she made a decision whether or not to become sexually active. This limitation required the analysis to be couched in terms of factors associated with teenage sexual activity and childbearing, rather than in terms of the effects of these factors on activity and childbearing.

Third, this survey did not measure certain classes of variables that have been shown to be related to a teen's sexual activities. These include, for example, attitudes to sexual behavior, perceptions of peer group behavior, and aspirations for future education and work. These are important factors, but the decision was made to use this data base in spite of this limitation because of its large sample size providing extensive data on teenage sexual and childbearing behavior as well as broad background information.

APPENDIX B: BACKGROUND TABLES

TABLE B-1. SEXUAL ACTIVITY: Percent of Teens Who Have Had Sexual Intercourse, by Age of Teen and Selected Characteristics: 1982

Characteristic	Percent of teens who have ever had sexual intercourse, by age of teen	
	15-17	18-19
All teens	32.2	64.1
Family background		
Mother's education a/	*	*
Less than 12 years	50.3	78.2
12 years	28.7	61.8
13-15 years	28.3	61.8
16 or more years	14.4	47.6
Income to needs ratio b/	*	*
Less than 0.5	63.9	74.2
0.5 to 0.99	46.9	73.2
1.00 to 1.99	39.7	56.9
2.00 or higher	22.5	63.0
Living arrangements at age 14 c/	*	*
One parent	48.2	75.0
Both parents	25.1	58.5
Communication with parents d/	*	
None	20.5	68.5
Some	28.2	61.3
More	41.1	63.1
Personal characteristics		
Race/ethnicity	*	*
White	29.8	60.3
Black	44.1	79.5
Hispanic	33.9	70.6

TABLE B-1. SEXUAL ACTIVITY: Percent of Teens Who Have Had Sexual Intercourse, by Age of Teen and Selected Characteristics: 1982--Continued

Characteristic	Percent of teens who have ever had sexual intercourse, by age of teen	
	15-17	18-19
Religious denomination	*	*
Catholic	25.5	56.3
Not Catholic	35.4	68.9
Degree of religious commitment e/	*	*
Less	42.3	73.3
More	25.2	53.1
Sex education f/		
None	32.6	60.6
Some	32.1	72.1
More	32.1	62.8
Age started dating	*	*
13 or younger	44.8	78.1
14 or 15	36.5	68.8
16 or 17	19.6	58.6
18 or older	12.3	18.6
Major activity g/	*	*
In school	25.3	52.1
Working	38.9	59.2
Other	56.7	93.9
Age at menarche h/		
11 or younger	34.4	68.9
12	32.5	68.7
13	28.8	61.4
14 or older	33.0	59.3
Geographic factors		
Region	*	*
Northeast	22.9	52.1
North Central	34.0	59.2
South	35.2	72.7
West	35.1	70.2
Urban/rural	*	
Urban	35.1	61.3
Rural	28.2	69.0

(Footnotes shown on following page.)

* T-test of difference between means significant at the 5 percent level of significance. When more than one category is shown for a variable, the asterisk indicates significance at least between the lowest and highest mean ages, but not necessarily between each combination of the means.

a/ Educational attainment of the mother of the teenager.

b/ Ratio of family income in year preceding the survey to official poverty threshold for a family of that size and compositions.

c/ Number of parents teenager lived with when she was 14.

d/ Based on teenagers report of whether she has talked with either or both of her parents about how pregnancy occurs or about methods of birth control. If neither, teen is designated "None;" if one or the other, teen is designated "Some"; if both, teen is designated "More."

e/ Teenager designated "more" if she reports attending church at least once a month or, if Catholic, if she reports receiving communion at least once a month.

f/ Same as "communication with parents," except refers to formal instruction on how pregnancy occurs and methods of birth control.

g/ Current major activity of teenager.

h/ Age at which teenager has first monthly period.

Source: Compiled by CRS from microdata public use file of the National Survey of Family Growth, conducted by the National Center for Health Statistics in 1982.

TABLE B-2. AGE AT FIRST SEX: Mean Age at First Sexual Intercourse for Teens
Who Have Had Intercourse, by Age of Teen and
Selected Characteristics: 1982

Characteristics	Mean age at first intercourse, by age of teen	
	15-17	18-19
All teens	14.8	15.9
Family background characteristics		
Mother's education a/		*
Less than 12 years	14.8	15.6
12 years	14.7	16.1
13-15 years	14.5	16.2
16 or more years	15.0	16.1
Income to needs ratio b/		*
Less than 0.5	15.0	15.8
0.5 to 0.99	14.4	15.5
1.00 to 1.99	15.0	15.8
2.00 or higher	14.6	16.2
Living arrangements at age 14 c/		*
One parent	14.6	15.6
Both parents	14.9	16.2
Communication with parents d/		*
None	14.7	15.8
Some	14.6	16.1
More	14.8	16.0
Personal characteristics		
Race/ethnicity		*
White	14.9	16.1
Black	14.5	15.5
Hispanic	14.4	15.6
Religious denomination		*
Catholic	14.7	15.9
Not Catholic	14.8	16.0

(Table continued on following page.)

'TABLE B-2. AGE AT FIRST SEX: Mean Age at First Sexual Intercourse for Teens
Who Have Had Intercourse, by Age of Teen and
Selected Characteristics: 1982--Continued

| Characteristics | Mean age at first intercourse, by age of teen | |
	15-17	18-19
Degree of religious commitment e/		*
Less	14.8	15.8
More	14.7	16.2
Sex education f/	*	*
None	15.5	15.7
Some	14.7	15.8
More	14.9	16.0
Major Activity g/		*
In school	14.4	16.3
Working	15.2	16.0
Other	14.8	15.6
Age started dating	*	*
13 or younger	13.7	14.9
14 or 15	14.3	15.5
16 or 17	15.3	16.3
18 or older	15.6	16.3
Age at menarche h/	*	*
11 or younger	14.1	15.5
12	14.7	15.9
13	15.0	16.0
14 or older	15.4	16.3
Geographic factors		
Region		*
Northeast	14.9	16.3
North Central	14.9	16.0
South	14.7	15.8
West	14.5	15.7
Urban/rural		
Urban	14.7	16.0
Rural	14.8	15.9

(Footnotes shown on following page.)

* T-test of difference between means significant at the 5 percent level of significance. When more than one category is shown for a variable, the asterisk indicates significance <u>at least</u> between the lowest and the highest mean ages, but not necessarily between each combination of the means.

Source: Compiled by CRS from microdata public use file of the National Survey of Family Growth, conducted by the National Center for Health Statistics in 1982.

(See explanation of characteristics in footnotes in table B-1.)

TABLE B-3. CONTRACEPTIVE USE: Current Use of Contraceptives
According to Selected Background Characteristics,
by Age of Teen

Background characteristics	Percent of sexually active teens using contraception		Percent of teens using contraception who are using a medical method	
	15-17	18-19	15-17	18-19
All teens	57.2	68.6	66.3	71.7
Family background				
Mother's education				
11 years or less	53.9	70.6	64.4	77.5
12 years	57.8	67.6	65.6	72.8
13-15 years	55.2	63.4	82.2	66.2
16 years or more	73.8	73.9	54.6	56.7
Income to needs ratio	*			
Less than .50	54.1	64.0	71.2	56.1
.50-.99	40.3	65.2	67.7	69.6
1.00-1.99	53.3	76.2	66.8	71.5
2.00 or more	67.0	67.2	64.7	76.6
Living arrangements at age 14				
One parent	58.9	69.1	69.7	74.4
Both parents	55.8	68.2	63.4	69.9
Communication with parents		*		
None	45.4	61.2	41.7	69.9
Some	48.6	62.9	75.3	63.5
More	64.2	76.5	67.1	76.5
Personal characteristics				
Race/ethnicity	*			
White	62.1	68.1	66.1	70.1
Black	57.6	68.3	67.0	79.3
Hispanic	15.6	79.5	39.2	74.6

(Table continued on following page.)

TABLE B-3. CONTRACEPTIVE USE: Current Use of Contraceptives
According to Selected Background Characteristics,
by Age of Teen--Continued

Background characteristics	Percent of sexually active teens using contraception		Percent of teens using contraception who are using a medical method	
	15-17	18-19	15-17	18-19
Religious denomination				
Catholic	55.7	70.3	59.9	64.4
Not Catholic	57.7	67.6	68.5	75.9
Degree of religious commitment				
Less	59.4	70.4	74.9	70.2
More	54.4	65.6	55.2	74.4
Formal sex education	*			
None	35.1	80.0	56.1	73.4
Some	50.9	69.0	·52.7	72.2
More	64.5	66.4	71.6	71.2
Major activity				
In school	56.9	63.6	75.6	57.7
Working	58.5	71.0	60.9	76.9
Other	54.0	69.6	44.8	74.8
Age started dating				*
13 or younger	58.6	66.5	67.9	67.4
14 or 15	54.4	70.3	72.4	68.4
16 or 17	62.7	68.6	48.5	80.3
18 or older	n/a	38.9	n/a	10.9
Age at menarche				
11 or younger	55.1	63.5	65.0	63.0
12	71.9	71.2	73.1	67.6
13	56.4	69.8	57.8	75.4
14 or older	36.8	68.2	61.7	78.5
Geographic factors				
Region				*
Northeast	60.1	70.9	62.3	57.7
North Central	57.8	68.8	65.3	73.6
South	48.8	68.7	61.5	79.7
West	71.6	66.3	78.0	69.6

(Table continued on following page.)

TABLE B-3. CONTRACEPTIVE USE: Current Use of Contraceptives
According to Selected Background Characteristics,
by Age of Teen--Continued

Background characteristics	Percent of sexually active teens using contraception		Percent of teens using contraception who are using a medical method	
	15-17	18-19	15-17	18-19
Urban/Rural				
Urban	58.0	72.2	63.0	70.0
Rural	55.8	62.6	71.9	75.0
Sex-related behaviors				
Age at first sex				*
Less than 14	50.6	73.3	70.4	92.7
14-15	54.6	73.4	65.1	69.5
16-17	64.9	64.8	66.0	74.3
18 or older	n/a	70.6	n/a	58.5
Use of contraceptives at first sex	*			
No	48.8	62.4	75.9	74.6
Yes	69.0	73.4	56.7	69.7
Consultation on contraception a/	*	*	*	*
No	42.2	53.2	41.0	48.9
Yes	75.3	77.9	83.4	81.1
Frequency of sexual intercourse		*	*	*
Once a month	50.0	52.5	44.2	60.8
2 or 3 times a month	51.0	60.6	68.0	57.2
Once a week or more	66.9	76.5	74.1	78.8
Number of children previously born		*		
0	56.0	65.1	67.4	70.4
1 or more	62.1	80.0	57.9	75.0

(Footnotes shown on following page.)

* T-test of difference between means significant at the 5 percent level of significance. When more than one category is shown for a variable, the asterisk indicates significants at least between the lowest and the highest mean ages, but not necessary between each combination of the means.

a/ Indicates whether respondent has consulted with physician or other trained medical personnel regarding contraception within the past 3 years.

Source: Compiled by CRS from micro data public use file o the National Survey of Family Growth, conducted by the National Center for Health Statistics in 1982.

(See explanation of other characteristics in footnotes on Table B-1.)

TABLE B-4. TEEN CHILDBEARING: Percent of Teens Who Have Ever Had a Baby,
            by Age of Teen and Selected Characteristics,
        for All Teens and Teens Who Have Had Sexual Intercourse

| | Percent of teens who have had a baby | | | |
| | All teens | | Teens who have had sexual intercourse | |
Characteristics	15-17	18-19	15-17	18-19
All teens	3.6	14.4	10.1	22.5
Family background				
Mother's education	*	*		*
Less than 12 years	7.4	28.5	14.8	36.5
12 years	2.8	11.5	9.9	18.6
13-15 years	(a)	8.1	(a)	13.1
16 or more years	(a)	4.4	(a)	9.2
Income to needs ratio	*	*	*	*
Less than 0.5	15.9	27.5	24.8	37.1
0.5 to 0.99	6.0	24.2	12.7	33.0
1.00 to 1.99	4.1	14.4	10.4	25.4
2.00 or more	1.0	8.6	4.1	13.4
Living arrangements at age 14	*	*		*
One parent	5.9	22.5	12.3	30.0
Both parents	2.1	10.3	8.2	17.6
Communication with parents		*		*
None	3.5	22.9	17.2	33.4
Some	2.0	13.1	7.1	21.4
More	4.0	10.2	9.6	16.1
Personal characteristics				
Race/ethnicity	*	*	*	*
White	1.7	8.7	5.6	14.5
Black	9.1	29.7	20.6	37.4
Hispanic	5.7	37.4	16.9	53.0

(Table continued on following page.)

TABLE B-4. TEEN CHILDBEARING: Percent of Teens Who Have Ever Had a Baby,
           by Age of Teen and Selected Characteristics,
    for All Teens and Teens Who Have Had Sexual Intercourse--Continued

| | Percent of teens who have had a baby | | | |
| | All teens | | Teens who have had sexual intercourse | |
Characteristics	15-17	18-19	15-17	18-19
Religious denomination	*			
Catholic	2.1	12.8	8.4	22.4
Not Catholic	3.8	15.4	10.7	22.7
Degree of religious commitment	*			
Less	3.9	16.4	9.2	22.3
More	2.8	12.1	11.2	22.7
Sex education				
None	4.3	21.1	13.1	34.8
Some	4.7	19.2	14.6	26.6
More	2.5	11.9	7.7	18.9
Major activity	*	*	*	*
In school	2.0	4.6	8.1	8.9
Working	(a)	5.8	(a)	9.8
Other	20.7	50.2	36.5	53.4
Age started dating	*			
13 or younger	5.0	14.2	11.2	18.2
14 or 15	3.8	17.0	10.4	24.7
16 or 17	1.6	12.4	8.3	21.1
18 or older	(a)	7.6	(a)	40.7
Age at menarche	*		*	
11 or younger	4.9	20.6	14.3	29.9
12	3.9	15.9	12.1	23.1
13	2.5	10.3	8.7	16.7
14 or older	(a)	13.0	2.8	21.8

(Table continued on following page.)

TABLE B-4. TEEN CHILDBEARING: Percent of Teens Who Have Ever Had a Baby,
by Age of Teen and Selected Characteristics,
for All Teens and Teens Who Have Had Sexual Intercourse--Continued

| | Percent of teens who have had a baby | | | |
| | All teens | | Teens who have had sexual intercourse | |
Characteristics	15-17	18-19	15-17	18-19
Geographic factors				
Region	*			*
Northeast	2.6	6.1	11.4	11.8
North Central	3.8	11.4	11.1	19.2
South	4.0	19.1	11.3	26.3
West	1.9	19.9	5.5	28.3
Urban/rural				
Rural	2.4	16.4	8.5	23.8
Urban	3.9	13.3	11.1	21.7
Sex-related behaviors				
Age at first sex			*	*
13 or younger	n/a	n/a	16.7	46.6
14 or 15	n/a	n/a	12.0	37.3
16 or 17	n/a	n/a	3.2	16.5
18 or older	n/a	n/a	n/a	3.1
Use of contraceptives at first sex				*
No	n/a	n/a	12.8	33.9
Yes	n/a	n/a	6.1	12.3
Number of children wanted				
One	3.5	15.3	10.4	23.9
Two	3.4	15.6	9.3	23.8
Three	2.8	14.6	9.8	21.3
Four or more	3.2	9.4	16.2	18.7

(Footnotes shown on following page.)

* T-test of difference between means significant at the 5 percent level of significance. When more than one category is shown for a variable, the asterisk indicates significance at least between the lowest and the highest mean ages, but not necessary between each combination of the means.

Source: Compiled by CRS from microdata public use file of the National Survey of Family growth, conducted by the National Center for Health Statistics in 1982.

(a) No observed cases in sample.

(See explanation of characteristics in footnotes on Table 1.)

APPENDIX C: TECHNICAL APPENDIX

This appendix presents a brief technical discussion of the methods of logistic regression and ordinary least squares regression used to conduct the analysis of the National Survey of Family Growth, presented in chapters 2 through 4 of this report. In both cases, these methods were used to estimate the effects of a series of independent variables (factors) on a dependent variable (i.e., sexual activity, age at first sex, contraceptive use, or teenage childbearing).

Logistic Regression

When the dependent variable of interest is dichotomous, ordinary linear regression models are not appropriate. Logistic regression allows the marginal effect of a single variable to vary across the range of its possible values. The effects of the independent variables, then, are nonlinear. Independent variables have a larger impact at the middle of the predicted probability range on the outcome variable than at the extremes. This intuitively suggests that if a teen is, on the basis of most independent variables, either very likely or very unlikely to be, for example, sexually active, the effect of changing the value of one independent variable will be less than if her probability is somewhere in the middle of the distribution.

The dichotomous dependent variable can be thought of as representing a probability of a given outcome (e.g., that a teen active). Expressed in matrix notation, the logistic distribution is defined as follows:

$$P = 1/(1 + e^{-XB}) \qquad (1)$$

The distribution of P ranges from 0 to 1 as XB ranges from negative to positive infinity. The estimates of the parameters in the logit model are obtained using maximum likelihood procedures with the data on individual cases provided in the NSFG. These procedures produce estimates of the coefficients, B_j, which maximize the probability of the pattern of responses in the observed database.

Unlike the analysis using the linear model, the individual coefficients from the logistic regression model are not readily interpreted. The coefficient represents "the change in the log of the odds associated with a unit change in the exogenous variable." 58/ Evaluation of the impact of specific variables on the estimated probability can be conducted for specific values of the independent variables by substitution in formula (1), provided above. This approach was used to construct the tables analyzing teen sexual activity (tables 1-3), teen contraceptive use (tables 5-7), and teen childbearing (tables 8-10). For each variable cited in each table, the effect of varying its value was determined by using the mean value of every other variable and substituting different values of the variable of interest into the equation. The estimated coefficients from the logistic regression analysis were used with these mean values of the independent variables in the equation above to determine the effect of changing the values of the specific independent variable on the estimated probability. The list of all variables included in each equation is cited at the bottom of each table. The mean values were for the total teen population or only for sexually active teens, depending on the population for

58/ Hanushek, Erik A. and John E. Jackson. Statistical Methods for Social Scientists. Academic Press, New York, 1977. p. 206.

which the equation was estimated. In cases where the model was estimated sep-
arately for race or age groups, the means for the particular group, along with
the appropriate coefficients, were used.

To provide a highly simplified example, suppose, for inclusion in equation
(1):

$$XB = b_1 POV + b_2 MOMEDUC + b_3 COMM$$

where:

POV   = Income to needs ratio for a family

MOMEDUC = Mother's education

COMM   = Communication with parents

and it is of interest to determine the effect of having a mother with 8 com-
pared to 16 years of education on the probability that a teen is sexually
active. The coefficients b_1, b_2, and b_3 are estimated with logistic regres-
sion. The mean values for the total teen population are substituted for POV
and COMM, along with the estimated coefficients, and the values of 8 and 16 are
inserted in the equation (1), separately, to determine the differences in esti-
mated probability. This yields an estimate of the effect of having a mother
with these two levels of education on the probability that an otherwise average
teen is sexually active.

Ordinary Least Squares Regression

An ordinary least squares regression analysis was used to estimate the
effects of the independent variables on the age at which a teen first has sex-
ual intercourse. The basic relationship can be represented in matrix notation
as follows:

$$Y = XB + e \qquad\qquad (2)$$

Estimates of the coefficients are based on the observed sample relationships
among the X_{ij} and the Y_i, and are designated b_i.

The coefficients obtained in ordinary least squares, unlike those from logistic regression, are readily interpretable. Each coefficient indicates the effect of a unit change in the independent variable on the value of the dependent variable.

However, for the sake of consistency of presentation of the results, the effects of the estimated coefficients for specific values of the independent variables were calculated and provided in Table 4. This was calculated in an analogous manner to the tables for the logistic regression. The mean values on all independent variables except the one of interest were included in equation (2), above, along with all the estimated coefficients, and selected values of the variable of interest were substituted to provide the estimates shown in the table.

Results

The actual results of the regression analyses, with estimated coefficients and the means used to calculate the examples shown in the text tables are provided in tables C-1 through C-6. 59/

59/ These data will not precisely provide the estimates shown in the text tables in the case of the logistic regression analyses. Because there is no error term in a logistic regression, the sum of the estimates and the mean, along with the intercept, does not always sum to the sample mean. In order to force the equations to be centered around the relevant means (e.g. for sexually active 15 to 17 year olds), the intercept term was adjusted so that when all coefficients were entered into the equation with their respective means, the equation yielded the sample mean probability. The effects of changing the values of different variables were then calculated based on these figures.

TABLE C-1.   Coefficients and Means Used to Calculate Effects of
Characteristics on the Probability that a Teen is Sexually Active

	Total population		
Factor	Estimated coefficient	Mean	
RCOMM	0.188046*	1.202	RCOMM: Communication with parents
RSEXED	0.027691	1.4896	RSEXED: Sex education
MEN1	-0.03200	12.4865	MEN1: Age at menarche
OTHER	-0.49762	0.02481	OTHER: Other, non-Hispanic
BLACK	0.647893*	0.14494	BLACK: Black, non-Hispanic
HISP	-0.19557	0.0986	HISP: Hispanic
LIV14	-0.57947*	0.6797	LIV14: Living arrangement, age 14
EDUCMOM	-0.09877*	12.0481	EDUCMOM: Mother's education
DATE	-0.48627*	14.9127	DATE: Age at first date
CATH	-0.30497*	0.3497	CATH: Religious denomination
REL	-0.87878*	0.5292	REL: Religious commitment
AGE	0.684411	17.2017	AGE: Age of teen
AGE*AGE	0.00029	297.759	AGE*AGE: Age squared
POV	-0.00131*	247.28	POV: Income to needs ratio (x100)
SCHOOL	-0.34185*	0.471	SCHOOL: Major activity, in school
OTHER2	1.31521*	0.145	OTHER2: Major activity, other
RURAL	-0.04650	1.3917	RURAL: Urban/rural, rural
NE	-1.08914*	0.2158	NE: Region, northeast
NC	-0.28843	0.2595	NC: Region, north central
W	0.006682	0.1998	W: Region, west
Intercept	-1.88155		
R^2	.27		
Somer's Dyx	.671		

* Statistically significant at Alpha = .05 level.

(Table continued on following page.)

TABLE C-1. Coefficients and Means Used to Calculate Effects of
Characteristics on the Probability that a Teen is Sexually Active--Continued

| | By Race | | | |
| | White | | Black | |
Factor	Estimated coefficient	Mean	Estimated coefficient	Mean
RCOMM	0.24133*	1.2392	0.019373	1.2401
RSEXED	-0.10664	1,5064	0.337697	1.5561
MEN1	-0.09331	12.5339	-0.07397	12.3852
LIV14	-0.36585*	0.7176	-1.17341*	0.4912
EDUCMOM	-0.08237*	12.4604	-0.20674*	11.4869
DATE	-0.50161*	14.8357	-0.53396*	15.2229
CATH	-0.31896*	0.3556	0.588714	0.1057
REL	-0.93384*	0.5267	-0.8843*	0.6753
AGE	-0.11948	17.2274	0.493628	17.1512
AGE*AGE	0.023045	298.652	0.01309	295.947
POV	-0.00124*	267.513	-0.00163	165.096
SCHOOL	-0.43626*	0.446	-0.13138	0.5834
OTHER2	1.36869*	0.1151	0.563514	0.2105
RURAL	0.005022	1.4304	0.486371	1.2898
NE	-1.06441*	0.2364	-0.60781	0.181
NC	-0.12724	0.3063	-0.51627	0.1659
W	0.326535	0.1884	-0.23626	0.0974
Intercept	5.81386		.063062	
R^2	.26		.21	
Somer's Dyx	.669		.664	

* Statistically significant at Alpha = .05 level.

(Table continued on following page.)

TABLE C-1. Coefficients and Means Used to Calculate Effects of
Characteristics on the Probability that a Teen is Sexually Active--Continued

| | By age | | | |
| | 15 to 17 | | 18 to 19 | |
Factor	Estimated coefficient	Mean	Estimated coefficient	Mean
RCOMM	0.523775*	1.214	-0.10902	1.1881
RSEXED	-0.01633	1.4376	0.07875	1.5502
MEN1	-0.01481	12.297	-0.04728	12.7071
OTHER	-0.87913	0.0273	-0.28698	0.0219
BLACK	0.22678	0.1562	1.05301*	0.1318
HISP	-0.36313	0.102	-0.28444	0.0947
LIV14	-0.68660*	0.6931	-0.337	0.6642
EDUCMOM	-0.10861*	12.0944	-0.07588*	11.9943
DATE	-0.52063*	14.778	-0.47924*	15.0695
CATH	-0.41367	0.3195	-0.1292	0.3849
REL	-0.79538*	0.5889	-1.04114*	0.4575
AGE	8.27506	16.1117	0.020204	18.471
AGE*AGE	-0.23551	260.261	0.02147	341.42
POV	-0.00322*	255.677	-0.00004	237.501
SCHOOL	-0.63419*	0.6158	-0.12501	0.3024
OTHER2	0.581533	0.0964	2.29064*	0.2017
RURAL	-0.20867	1.4194	0.123316	1.3596
NE	-1.13933*	0.2191	-1.12142*	0.2119
NC	-0.30592	0.2462	-0.51262*	0.2748
W	0.173922	0.1818	-0.16732	0.2208
Intercept	-61.7044		2.42464	
R^2	.23		.20	
Somer's Dyx	.669		.610	

* Statistically significant at Alpha = .05 level.

TABLE C-2.   Coefficients and Means Used to Calculate Effects of
Characteristics on Age at First Sex

Factor	Total population		
	Estimated Coefficient	Mean	
RCOMM	0.075969	1.202	RCOMM: Communication with parents
RSEXED	0.144058*	1.4896	RSEXED: Sex education
MEN1	0.178576*	12.4865	MEN1: Age at menarche
OTHER	-0.57429*	0.02481	OTHER: Other, non-Hispanic
BLACK	-0.64732*	0.14494	BLACK: Black, non-Hispanic
HISP	-0.50977*	0.0986	HISP: Hispanic
LIV14	0.266233*	0.6797	LIV14: Living arrangement, age 14
EDUCMOM	0.012199	12.0481	EDUCMOM: Mother's education
DATE	0.300176*	14.9127	DATE: Age at first date
CATH	0.099055	0.3497	CATH: Religious denomination
REL	0.242425*	0.5292	REL: Religious commitment
AGE	4.592928	17.2017	AGE: Age of teen
AGE*AGE	-0.12031	297.759	AGE*AGE: Age squared
POV	0.000188	247.28	POV: Income to needs ratio (x100)
SCHOOL	0.092231	0.471	SCHOOL: Major activity, in school
OTHER2	-0.18688	0.145	OTHER2: Major activity, other
RURAL	-0.10254	1.3917	RURAL: Urban/rural, rural
NE	0.472063*	0.2158	NE: Region, northeast
NC	0.068698	0.2595	NC: Region, north central
W	-0.14918	0.1998	W: Region, west
Intercept	-35.0326*		
R^2	.38		

*Statistically significant at alpha = .05 level.

TABLE C-2. Coefficients and Means Used to Calculate Effects of
Characteristics on Age at First Sex—Continued

| | By Race | | | |
| | White | | Black | |
Factor	Estimated Coefficient	Mean	Estimated Coefficient	Mean
RCOMM	0.041368	1.31935	0.132230	1.22816
RSEXED	0.105540	1.50753	0.139887	1.57997
MEN1	0.163368*	12.447	0.154510*	12.3858
LIV14	0.402630*	0.628037	0.031798	0.399631
EDUCMOM	-0.00386	12.029	0.030298	11.0599
DATE	0.325767*	14.5231	0.344105*	14.9499
CATH	0.067853	0.297244	-0.02792	0.131036
REL	0.128470	0.373062	0.416403*	0.615617
AGE	5.455154	17.7593	1.388479	17.5832
AGE*AGE	-0.14466	316.845	-0.02871	310.678
POV	0.000218	238.756	-0.00075	146.785
SCHOOL	0.091824	0.309041	0.072746	0.481084
OTHER2	-0.26305	0.198058	-0.40949*	0.297301
RURAL	-0.16551	1.42831	-0.02878	1.30424
NE	0.573105*	0.17409	0.203026	0.175155
NC	0.151843	0.309178	0.026973	0.161846
W	-0.03827	0.239586	-0.22717	0.105955
Intercept	-42.5217*		-8.23205	
R^2	.35		.37	

* Statistically significant at Alpha = .05 level.

TABLE C-2. Coefficients and Means Used to Calculate Effects of
Characteristics on Age at First Sex--Continued

| | By age | | | |
| | 15-17 | | 18-19 | |
Factor	Estimated Coefficient	Mean	Estimated Coefficient	Mean
RCOMM	0.175685*	1.42425	0.059951	1.16239
RSEXED	0.156619*	1.43418	0.110161	1.54419
MEN1	0.196673*	12.1721	0.160909*	12.6072
OTHER	-1.07254*	0.01653	-0.44463	0.02443
BLACK	-0.49942*	0.21407	-0.76254*	0.16368
HISP	-0.75637*	0.10739	-0.41157*	0.10439
LIV14	0.257086*	0.540721	0.270545*	0.60675
EDUCMOM	-0.02232	11.3019	0.032607	11.699
DATE	0.300947*	14.304	0.320571*	14.7968
CATH	0.145680	0.252545	0.017597	0.338504
REL	-0.05508	0.459941	0.399367*	0.379427
AGE	2.586838	16.361	0.012201	18.5199
AGE*AGE	-0.06399	268.258	0	342.236
POV	-0.00104*	201.464	0.000652*	225.983
SCHOOL	-0.44177*	0.483693	0.330598*	0.245965
OTHER2	-0.40539*	0.169682	-0.16309	0.295684
RURAL	-0.14704	1.36682	-0.03223	1.38707
NE	0.330574	0.156116	0.512937*	0.172217
NC	-0.09904	0.259794	0.074916	0.254151
W	-0.23702	0.197944	-0.09785	0.242046
Intercept	-16.5508		7.967914*	
R^2	.44		.22	

* Statistically significant at Alpha = .05 level.

TABLE C-3. Coefficients and Means Used to Calculate Effects of
Characteristics on the Probability that a Sexually Active
Teen Is Using Contraceptives

Factor	Total population		
	Estimated coefficient	Mean	
RCOMM	0.345269*	1.25908	RCOMM: Communication with parents
RSEXED	-0.13852	1.50357	RSEXED: Sex education
MEN1	-0.04433	12.4465	MEN1: Age at menarche
BLACK	0.263121	0.18228	OTHER: Other, non-Hispanic
HISP	-0.15470	0.10549	BLACK: Black, non-Hispanic
OTHER	-0.32454	0.02151	HISP: Hispanic
LIV14	0.08078	0.58237	LIV14: Living arrangement, age 14
EDUCMOM	0.058357	11.5524	EDUCMOM: Mother's education
DATE	0.000036	14.6148	DATE: Age at first date
CATH	0.319613	0.306765	CATH: Religious denomination
REL	-0.27681	0.409156	REL: Religious commitment
AGE	-1.70175	17.7228	AGE: Age of teen
AGE*AGE	0.045841	315.551	AGE*AGE: Age squared
CONSULT	1.16182*	0.516769	CONSULT: Consulted on contraception
POV	0.00051	216.93	POV: Income to needs ratio (x100)
SCHOOL	-0.02382	0.333743	SCHOOL: Major activity, in school
OTHER2	-0.09734	0.24916	OTHER2: Major activity, other
RURAL	-0.31974	1.37959	RURAL: Urban/rural, rural
NE	0.136279	0.166272	NE: Region, northeast
NC	-0.07425	0.256235	NC: Region, north central
W	0.055506	0.225762	W: Region, west
PARITY	1.12817*	0.206997	PARITY: Number of previous children
FIRSTCON	0.812029*	0.481667	FIRSTCON: Contracepted at first sex
TOTEXP	-0.00435	22.7932	TOTEXP: Number of children expected
SEXFREQ	0.370643*	2.65336	SEXFREQ: Frequency of intercourse
SEX1AGE	0.154262*	15.5089	SEX1AGE: Age at first sex
Intercept	11.7683		
R^2	.09		
Somer's Dyx	.525		

* Statistically significant at Alpha = .05 level.

TABLE C-3. Coefficients and Means Used to Calculate Effects of
Characteristics on the Probability that a Sexually Active
Teen Is Using Contraceptives--Continued

| | By Race | | | |
| | White | | Black | |
Factor	Estimated coefficient	Mean	Estimated coefficient	Mean
RCOMM	0.365144*	1.31935	0.451971	1.22816
RSEXED	-0.19980	1.50753	-0.18120	1.57997
MEN1	0.014554	12.447	-0.25949	12.3858
LIV14	0.209254	0.628037	-0.54992	0.399631
EDUCMOM	0.115216*	12.029	-0.00271	11.0599
DATE	-0.01037	14.5231	-0.10739	14.9499
CATH	0.326398	0.297244	-0.13212	0.131036
REL	-0.57100*	0.373062	0.064866	0.615617
AGE	-1.09242	17.7593	-2.40694	17.5832
AGE*AGE	0.028176	316.845	0.072446	310.678
CONSULT	1.09496*	0.5218	0.84985	0.573932
POV	0.00045	238.756	0.00017	146.785
SCHOOL	0.138411	0.309041	0.138082	0.481084
OTHER2	-0.30260	0.198058	0.520881	0.297301
RURAL	-0.43360	1.42831	-0.26038	1.30424
NE	0.30013	0.17409	-0.74646	0.175155
NC	0.150513	0.309178	-0.85641	0.161846
W	0.1264	0.239586	-0.13834	0.105955
PARITY	1.38747*	0.142234	0.131225	0.325677
FIRSTCON	0.736644*	0.555278	0.886387	0.35862
TOTEXP	-0.00959	23.2295	-0.00163	20.8101
SEXFREQ	0.268632*	2.73397	0.605361*	2.2455
SEX1AGE	0.11131	15.7028	0.183653	15.0821
Intercept	6.52708		20.7334	
R^2	.07			
Somer's Dyx	.505		.704	

* Statistically significant at Alpha = .05 level.

TABLE C-3.   Coefficients and Means Used to Calculate Effects of
Characteristics on the Probability that a Sexually Active
Teen Is Using Contraceptives--Continued

| | By age | | | |
| | 15-17 | | 18-19 | |
Factor	Estimated coefficient	Mean	Estimated coefficient	Mean
RCOMM	0.097904	1.42425	0.421552*	1.16239
RSEXED	0.218047	1.42418	-0.34781	1.54419
MEN1	-0.23971	12.1721	0.026528	12.6072
BLACK	0.096168	0.21407	0.342812	0.16368
HISP	-1.86725*	0.10739	0.867482	0.10439
OTHER	0.093579	0.01653	-0.52666	0.02443
LIV14	-0.93726	0.540721	0.061102	0.60675
EDUCMOM	0.08818	11.3019	0.06642	11.699
DATE	0.1799	14.304	-0.05848	14.7968
CATH	0.70646	0.252545	0.175514	0.338504
REL	-0.14737	0.459941	-0.31165	0.379427
AGE	-10.1894	16.361	-0.37479	18.5199
AGE*AGE	0.305053	268.258	0.008981	342.236
CONSULT	1.34951*	0.392386	0.980773*	0.589623
POV	0.001051	201.464	-0.00011	225.983
SCHOOL	0.08701	0.483693	-0.05765	0.245965
OTHER2	0.363374	0.169682	-0.29244	0.295684
RURAL	-0.37248	1.36682	-0.35444	1.38707
NE	0.345799	0.156116	0.123923	0.172217
NC	-0.12144	0.259794	-0.03169	0.254151
W	0.707719	0.197944	-0.33404	0.242046
PARITY	1.04539	0.105647	1.08601*	0.266326
FIRSTCON	0.827597*	0.402064	0.792128*	0.528265
TOTEXP	-0.00994	22.0303	-0.00456	23.2397
SEXFREQ	0.357419*	2.31815	0.379931*	2.84959
SEX1AGE	0.256156	14.7592	0.124342	15.9495
Intercept	78.791		0.880346	
R^2	.05		.06	
Somer's Dyx	.659		.545	

*   Statistically significant at Alpha = .05 level.

TABLE C-4. Coefficients and Means Used to Calculate Effects of
Characteristics on the Probability that a Teen
Uses Medical Contraception

Factor	Total population		
	Estimated coefficient	Mean	
RCOMM	-0.19294	1.25908	RCOMM: Communication with parents
RSEXED	-0.00361	1.50357	RSEXED: Sex education
MEN1	-0.11273	12.4465	MEN1: Age at menarche
BLACK	-0.45062	0.18228	OTHER: Other, non-Hispanic
HISP	0.392632	0.10549	BLACK: Black, non-Hispanic
OTHER	0.920989	0.02151	HISP: Hispanic
LIV14	0.120494	0.58237	LIV14: Living arrangement, age 14
EDUCMOM	0.137471	11.5524	EDUCMOM: Mother's education
DATE	0.092963	14.6148	DATE: Age at first date
CATH	0.174848	0.306765	CATH: Religious denomination
REL	0.260779	0.409156	REL: Religious commitment
AGE	8.72873	17.7228	AGE: Age of teen
AGE*AGE	-0.25044	315.551	AGE*AGE: Age squared
CONSULT	-1.5578	0.516769	CONSULT: Consulted on contraception
POV	-0.00096	216.93	POV: Income to needs ratio (x100)
SCHOOL	0.03579	0.333743	SCHOOL: Major activity, in school
OTHER2	0.100387	0.24916	OTHER2: Major activity, other
RURAL	-0.24694	1.37959	RURAL: Urban/rural, rural
NE	0.459938	0.166272	NE: Region, northeast
NC	-0.00348	0.256235	NC: Region, north central
W	0.116944	0.225762	W: Region, west
PARITY	-0.26808	0.206997	PARITY: Number of previous children
FIRSTCON	0.296492	0.481667	FIRSTCON: Contracepted at first sex
TOTEXP	-0.00759	22.7932	TOTEXP: Number of children expected
SEXFREQ	-0.33244	2.65336	SEXFREQ: Frequency of intercourse
SEX1AGE	-0.15133	15.5089	SEX1AGE: Age at first sex
Intercept	-73.387		

TABLE C-4. Coefficients and Means Used to Calculate Effects of
Characteristics on the Probability that a Teen
Uses Medical Contraception—Continued

| | By race | | | |
| | White | | Black | |
	Estimated coefficient	Mean	Estimated coefficient	Mean
RCOMM	-0.01587	1.31935	-0.72085	1.22816
RSEXED	-0.18094	1.50753	0.416798	1.57997
MEN1	-0.12055	12.447	-0.03951	12.3858
BLACK				
HISP				
OTHER				
LIV14	0.319574	0.628037	-0.20930	0.399631
EDUCMOM	0.167038	12.029	0.132194	11.0599
DATE	0.038537	14.5231	-0.09409	14.9499
CATH	0.071408	0.297244	0.268479	0.131036
REL	0.469985	0.373062	-0.72807	0.615617
AGE	14.5435	17.7593	-1.63783	17.5832
AGE*AGE	-0.41321	316.845	0.033554	310.678
CONSULT	-2.10117	0.5218	-0.55015	0.573932
POV	-0.00126	238.756	0.002674	146.785
SCHOOL	0.190615	0.309041	-0.20842	0.481084
OTHER2	0.016713	0.198058	0.704195	0.297301
RURAL	-0.46028	1.42831	-0.35402	1.30424
NE	0.212186	0.17409	-0.23607	0.175155
NC	-0.30857	0.309178	0.325503	0.161846
W	0.005428	0.239586	0.128681	0.105955
PARITY	-0.00611	0.142234	-1.03482	0.325677
FIRSTCON	0.500144	0.555278	0.216301	0.35862
TOTEXP	-0.00942	23.2295	0.024552	20.8101
SEXFREQ	-0.36549	2.73397	-0.36495	2.2455
SEX1AGE	-0.2212	15.7028	0.106321	15.0821
Intercept	-122.879	17.6796		

(Table continued on following page.)

TABLE C-4.   Coefficients and Means Used to Calculate Effects of
Characteristics on the Probability that a Teen
Uses Medical Contraception--Continued

| | By age | | | |
| | 15 to 17 | | 18 to 19 | |
	Estimated coefficient	Mean	Estimated coefficient	Mean
RCOMM	0.16516	1.42425	-0.14198	1.16239
RSEXED	-0.74921	1.43418	0.134577	1.54419
MEN1	0.177355	12.1721	-0.17552	12.6072
BLACK	-0.06467	0.21407	-0.35970	0.16368
HISP	1.58028	0.10739	0.218679	0.10439
OTHER	-1.14093	0.01653	1.15019	0.02443
LIV14	0.015746	0.540721	0.149177	0.60675
EDUCMOM	0.076012	11.3019	0.132251	11.699
DATE	0.122669	14.304	0.069124	14.7968
CATH	0.167031	0.252545	0.447631	0.338504
REL	0.6174	0.459941	-0.09450	0.379427
AGE	-24.5932	16.361	-0.48230	18.5199
AGE*AGE	0.790679	268.258	-0.00480	342.236
CONSULT	-2.30691	0.392386	-1.33656	0.589623
POV	0.001048	201.464	-0.00113	225.983
SCHOOL	-1.0061	0.483693	0.400225	0.245965
OTHER2	1.63437	0.169682	-0.18396	0.295684
RURAL	-0.44135	1.36682	-0.24809	1.38707
NE	-0.90562	0.156116	0.506201	0.172217
NC	-0.44437	0.259794	0.123595	0.254151
W	0.120648	0.197944	0.344773	0.242046
PARITY	-1.11659	0.105647	0.008092	0.266326
FIRSTCON	1.28995	0.402064	-0.05420	0.528265
TOTEXP	-0.00510	22.0303	-0.00526	23.2397
SEXFREQ	-0.65943	2.31815	-0.32952	2.84959
SEX1AGE	-0.66656	14.7562	-0.00449	15.9495
Intercept	198.445	11.3408		

* Statistically significant at Alpha = .05 level.

TABLE C-5. Coefficients and Means Used to Calculate Effects of
Characteristics on the Probability that a Teen Has a Baby,
For All Teens

	Total population		
	Estimated coefficient	Mean	
MAR1	2.86275*	0.087439	MAR1: Marital status
RCOMM	-0.47886*	1.202	RCOMM: Communication with parents
RSEXED	-0.00592	1.4896	RSEXED: Sex education
MEN1	-0.25285*	12.4865	MEN1: Age at menarche
BLACK	2.09108*	0.14494	OTHER: Other, non-Hispanic
HISP	1.30467*	0.0986	BLACK: Black, non-Hispanic
OTHER	-0.48349	0.02481	HISP: Hispanic
LIV14	-0.66495*	0.6797	LIV14: Living arrangement, age 14
EDUCMOM	-0.03845	12.0481	EDUCMOM: Mother's education
DATE	-0.28056*	14.9127	DATE: Age at first date
CATH	0.366026	0.3497	CATH: Religious denomination
REL	-0.20242	0.5282	REL: Religious commitment
AGE	7.96029*	17.2017	AGE: Age of teen
AGE*AGE	-0.20590*	297.759	AGE*AGE: Age squared
POV	-0.00293*	247.28	POV: Income to needs ratio (x100)
SCHOOL	0.54199	0.471	SCHOOL: Major activity, in school
OTHER2	2.30785*	0.145	OTHER2: Major activity, other
RURAL	-0.07057	1.3917	RURAL: Urban/rural, rural
NE	-0.91333*	0.2158	NE: Region, northeast
NC	0.104479	0.2595	NC: Region, north central
W	-0.11798	0.1998	W: Region, west
Intercept	-71.5		
R^2		.47	
Somer's Dyx		.922	

* Statistically significant at Alpha = .05 level.

(Table continued of following page.)

TABLE C-5. Coefficients and Means Used to Calculate Effects of
Characteristics on the Probability that a Teen Has a Baby,
For All Teens—Continued

| | By race | | | |
| | White | | Black | |
	Estimated coefficient	Mean	Estimated coefficient	Mean
MAR1	3.5667*	0.08339	2.35258*	0.036465
RCOMM	-0.63745*	1.2392	-0.17672	1.2401
RSEXED	-0.01389	1.5064	-0.52637	1.5561
MEN1	-0.63146*	12.5339	-0.13708	12.3852
LIV14	-1.20967*	0.7176	-0.22286	0.4912
EDUCMOM	0.05102	12.4604	-0.10056	11.4869
DATE	-0.26874	14.8357	-0.42452*	15.2229
CATH	0.102046	0.3556	-0.01665	0.1057
REL	0.062944	0.5267	-0.47775	0.6753
AGE	-0.18716	17.2274	2.50338	17.1512
AGE*AGE	0.030649	298.652	-0.04390	295.947
POV	-0.00263	267.513	-0.00299	165.096
SCHOOL	0.181808	0.446	1.56104*	0.5834
OTHER2	2.72497*	0.1151	2.34221*	0.2105
RURAL	0.215093	1.4304	-0.03129	1.2898
NE	-0.34190	0.2364	-0.48338	0.181
NC	0.926849	0.3063	-0.29363	0.1659
W	-0.42619	0.1884	-0.40013	0.0974
Intercept	0.832333		-22.3502	
R^2	.53		.18	
Somer's Dyx	.953		.757	

* Statistically significant at Alpha = .05 level.

(Table continued on following page.)

TABLE C-5. Coefficients and Means Used to Calculate Effects of
Characteristics on the Probability that a Teen Has a Baby,
For All Teens—Continued

| | By age | | | |
| | 15 to 17 | | 18 to 19 | |
	Estimated coefficient	Mean	Estimated coefficient	Mean
MAR1	2.88835	0.031977	2.97861	0.152029
RCOMM	-0.22939	1.214	-0.67782	1.1881
RSEXED	-0.53399	1.4376	0.169303	1.5502
MEN1	-0.39003	12.297	-0.20294	12.7071
BLACK	2.03853	0.1562	1.93286	0.1318
HISP	1.11367	0.102	1.34897	0.0947
OTHER	1.2148	0.0273	-0.46423	0.0219
LIV14	-0.64832	0.6931	-0.65218	0.6642
EDUCMOM	-0.14997	12.0944	-0.00170	11.9943
DATE	-0.43190	14.778	-0.25483	15.0695
CATH	-0.10606	0.3195	0.588132	0.3849
REL	-0.63496	0.5889	-0.09598	0.4575
AGE	59.8171	16.1117	0.125617	18.471
AGE*AGE	-1.78434	260.261	0.012565	341.42
POV	-0.00401	255.677	-0.00266	237.501
SCHOOL	17.0352	0.6158	0.27438	0.3024
OTHER2	19.1485	0.0964	2.14011	0.2017
RURAL	-0.26094	1.4194	-0.10246	1.3596
NE	-0.82785	0.2191	-1.21284	0.2119
NC	0.747442	0.2462	-0.08040	0.2748
W	-0.10883	0.1818	-0.16830	0.2208
Intercept	-507.244	-2.81156		

TABLE C-6.   Coefficients and Means Used to Calculate Effects of
Characteristics on the Probability that a Teen Has a Baby,
Sexually Active Teens Only

Factor	Total Population Estimated coefficient	Mean	
MAR1	2.39906*	0.186366	MAR1: Marital status
RCOMM	-0.51675*	1.25908	RCOMM: Communication with parents
RSEXED	-0.03014	1.50357	RSEXED: Sex education
MEN1	-0.15930	12.4465	MEN1: Age at menarche
BLACK	1.69921*	0.18228	OTHER: Other, non-Hispanic
HISP	1.32141*	0.10549	BLACK: Black, non-Hispanic
OTHER	-0.35149	0.02151	HISP: Hispanic
LIV14	-0.37052	0.58237	LIV14: Living arrangement, age 14
EDUCMOM	-0.00015	11.5524	EDUCMOM: Mother's education
DATE	-0.02723	14.6148	DATE: Age at first date
CATH	0.42369	0.306765	CATH: Religious denomination
REL	0.201574	0.409156	REL: Religious commitment
AGE	8.99074*	17.7228	AGE: Age of teen
AGE*AGE	-0.23544*	315.551	AGE*AGE: Age squared
POV	-0.00263*	216.93	POV: Income to needs ratio (x100)
SCHOOL	0.642215	0.333743	SCHOOL: Major activity, in school
OTHER2	2.16611*	0.24916	OTHER2: Major activity, other
RURAL	0.073505	1.37959	RURAL: Urban/rural, rural
NE	-0.54875	0.166272	NE: Region, northeast
NC	0.294491	0.256235	NC: Region, north central
W	-0.09531	0.225762	W: Region, west
SEX1AGE	-0.55506*	15.5089	SEX1AGE: Age at first sex
Intercept	-77.2931*		
R^2	.39		
Somer's Dyx	.881		

*   Statistically significant at Alpha = .05 level.

(Table continued on following page.)

TABLE C-6. Coefficients and Means Used to Calculate Effects of
Characteristics on the Probability that a Teen Has a Baby,
Sexually Active Teens Only--Continued

| | By race | | | |
| | White | | Black | |
	Estimated coefficient	Mean	Estimated coefficient	Mean
MAR1	3.06052*	0.188263	2.45554*	0.061799
RCOMM	-0.71604*	1.31935	-0.16477	1.22816
RSEXED	-0.11355	1.50753	-0.59423	1.57997
MEN1	-0.54772*	12.447	-0.02465	12.3858
LIV14	-0.99553*	0.628037	0.100058	0.399631
EDUCMOM	0.050419	12.029	-0.02159	11.0599
DATE	0.028798	14.5231	-0.11562	14.9499
CATH	0.042579	0.297244	0.132382	0.131036
REL	0.482346	0.373062	-0.15859	0.615617
AGE	-0.05854	17.7593	3.2976	17.5832
AGE*AGE	0.02799	316.845	-0.06491	310.678
POV	-0.00252	238.756	-0.00318	146.785
SCHOOL	0.609694	0.309041	1.62597	0.481084
OTHER2	2.69036*	0.198058	2.07121*	0.297301
RURAL	0.474836	1.42831	-0.25946	1.30424
NE	-0.20864	0.17409	-0.23578	0.175155
NC	0.997747	0.309178	-0.07756	0.161846
W	-0.51118	0.239586	-0.66304	0.105955
SEX1AGE	-0.56344*	15.7028	-0.63721*	15.0821
Intercept	2.67144		-26.6208	
R^2	.45		.09	
Somer's Dyx	.935		.776	

* Statistically significant at Alpha = .05 level.

(Table continued on following page.)

TABLE C-6. Coefficients and Means Used to Calculate Effects of
Characteristics on the Probability that a Teen Has a Baby,
Sexually Active Teens Only--Continued

| | By age | | | |
| | 15-17 | | 18-19 | |
	Estimated coefficient	Mean	Estimated coefficient	Mean
MAR1	2.42855*	0.099308	2.53298*	0.237328
RCOMM	-0.57568	1.42425	-0.65567*	1.16239
RSEXED	-0.72154	1.43418	0.132326	1.54419
MEN1	-0.45956	12.1721	-0.13321	12.6072
BLACK	1.77127*	0.21407	1.61451*	0.16368
HISP	0.868523	0.10739	1.52209*	0.10439
OTHER	2.98999	0.01653	-0.39069	0.02443
LIV14	-0.22684	0.540721	-0.40434	0.60675
EDUCMOM	-0.24522	11.3019	0.042649	11.699
DATE	-0.12511	14.304	-0.01735	14.7968
CATH	0.632728	0.252545	0.549507	0.338504
REL	-0.05999	0.459941	0.25078	0.379427
AGE	70.2945	16.361	0.447579	18.5199
AGE*AGE	-2.09313	268.258	0	342.236
POV	-0.00385	201.464	-0.00257*	225.983
SCHOOL	18.3186	0.483693	0.340554	0.245965
OTHER2	20.2989	0.169682	1.93749*	0.295684
RURAL	0.015429	1.36682	0.04288	1.38707
NE	-0.12846	0.156116	-0.84495	0.172217
NC	1.35334	0.259794	0.135133	0.254151
W	-0.30938	0.197944	-0.14802	0.242046
SEX1AGE	-1.03148*	14.7562	-0.49042*	15.9495*
Intercept	-584.639*		-1.71922	
R^2	.32		.36	
Somer's Dyx	.959		.864	

* Statistically significant at Alpha = .05 level.