

# Trends in Adolescent Sexual Behavior, Contraceptive Use, Pregnancy, and Pregnancy Resolution

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## ADOLESCENT SEXUAL ACTIVITY AND CONTRACEPTIVE USE

Adolescent pregnancy and childbearing are health issues with profound social consequences. They are both intensely private concerns, yet they are the focus of relentless public discourse. It is only among adolescents that pregnancy and parenting are considered by some to be measures of our nation's social ills. It is the social costs of adolescent pregnancy and childbearing, rather than the medical or health consequences, upon which many researchers, policy makers, and educators focus their attention. It has been argued that the real risks of early childbearing are concentrated in the social dependence, rather than the biologic vulnerability, of the adolescent.

Adolescent childbearing is not uncommon in the U.S.: in 1998, about 12% of all livebirths were to women younger than 20 years.<sup>1</sup> However, the characteristics of adolescent mothers are different from those of adolescents who get pregnant but do not have children and very distinct from the characteristics of adolescents who do not get pregnant. To understand the nature of early childbearing, and the characteristics of

adolescent mothers, it is useful to recall that there are several steps that lead to childbearing,<sup>2</sup> including:

- Initiation of relevant sexual activity;
- Use of effective contraception;
- Consistent use of effective contraception; and
- If pregnant, resolution of pregnancy.

At each step, there are personal characteristics—and environmental and social conditions—that distinguish adolescent mothers from other adolescents.<sup>3-6</sup>

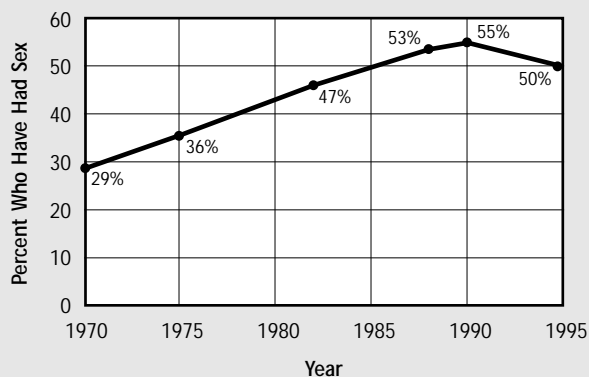
### Adolescent Sexual Activity

For females in the U.S., it is estimated that the median age of menarche is 12.4 years, the median age of initiation of sexual intercourse is about 16 years and the median age at first marriage is about 24 years. Thus, on average about 12 years elapse between the onset of menarche and marriage. For males in the U.S., the estimated ages for spermarche, first intercourse, and first marriage are 14, 16, and 26.5 years, respectively.<sup>7</sup> Thus, for U.S. teens there is at least an 8-year gap between the onset of sexual activity and marriage. The estimated gap for blacks is 12 years for women and 19 years for men.<sup>8</sup>

## Trends in Adolescent Sexual Activity

Exact data about the nature of sexual activity among youth are not available because of the sensitive nature of sexual behavior and thus the inherent biases associated with self-reported data.<sup>9</sup> Estimates from several national surveys from the 1990s indicate that slightly more than half of all 9th-12th graders, or 15-19 year-olds, have had sexual intercourse,<sup>10-13</sup> compared with data from the 1970s that indicated 35% of females and 55% of males reported having had sex by the age of 18 years.<sup>7</sup> However, while the proportion of adolescents having sex has increased steadily for the past two decades, it appears the trend is reversing—or stabilizing—among males and females (Figure 1).<sup>6, 12, 13</sup>

FIGURE 1  
Percent of Teen Females  
Who Have Had Sex, 1970–1995



Sources: Data for 1970 and 1975 are from the 1988 National Survey of Family Growth. Data for 1982 and 1988 are from the Sept/Oct issue of Family Planning Perspectives. Data for 1990 and 1995 are from the 1995 National Survey of Family Growth, females aged 15-19. Reprinted with permission, Moore KA, Driscoll AK, Lindberg LD. A statistical portrait of adolescent sex, contraception, and childbearing. Washington, DC: National Campaign to Prevent Teen Pregnancy, 1998, p. 19.

## Racial and Ethnic Differences in Adolescent Sexual Activity

Differences in the prevalence of sexually experienced black and white youth have decreased since 1970, largely due to a greater increase in sexual activity among white youth. However, several recent national studies have shown that black youth are still more likely than white or Hispanic adolescents to have had sexual intercourse, to have initiated sex at earlier ages, and to have had more lifetime sexual partners.<sup>7, 11</sup> For

example, 1995 data from the Youth Risk Behavior Survey<sup>13</sup> showed that:

- Median age at first intercourse for males was 13.6 years for blacks, 16.7 years for whites and 15.9 years for Hispanics.
- Median age at first intercourse for females was 15.9 years for blacks, 16.6 years for whites, and 16.5 years for Hispanics.
- 54% of black 9th-12th graders reported having had sexual intercourse in the past 3 months compared with 35% of white and 39% of Hispanic students.
- Number of lifetime partners varied by race/ethnicity and sex: 22% of black female and 52% of black male 9th-12th graders reported having had four or more sexual partners compared with 13% of white females, 15% of white males, 12% of Hispanic females, and 24% of Hispanic males who reported four or more lifetime partners.

## Factors Associated with Adolescent Sexual Activity

One of the strongest factors associated with the likelihood that adolescents will become sexually active is simply age: while sexual experience is rare among very young adolescents, it is estimated that by the time adolescents are seniors in high school, more than half will have had sexual intercourse. Data from the 1995 National Survey of Family Growth (NSFG) indicated that 25% of 15 year-old females reported having ever had sex, compared with 52% of 17 year-olds and 77% of 19 year-olds.<sup>6</sup> The proportions are higher for males: 27% of 15 year-old, 58% of 17 year-old, and 85% of 19 year-old males reported having had sex in the 1995 National Survey of Adolescent Males (NSAM).<sup>12</sup>

Other factors associated with adolescent onset of sexual activity are:<sup>4-6, 14, 15</sup>

- environmental poverty;
- early puberty;
- substance use and other problem behavior;
- young maternal age at first birth;
- poor adult/parental connectedness;
- low parental education, especially among mothers;
- peer influence;
- poor academic performance; and
- low religiosity.

## Contraceptive Use

There are varying estimates of contraceptive use among adolescents, reflecting varying methods for assessing use. There are several definitions of “contraception” ranging from “any method” (proven or unproven) to “hormonal contraceptives/condoms only.” Time frames for assessing contraceptive use also vary, from use at most recent intercourse, to use during the last three months, to use at first intercourse. Furthermore, samples are differentially defined, ranging from all youth, to youth who report recent sexual experiences, to all sexually experienced youth. And because much of the data on contraceptive use among adolescents are from school-based or national household surveys (e.g., NSFG), the data may not be representative of all youth at risk for pregnancy or parenting.

### Contraceptive Use at First Intercourse

Data from the 1995 NSFG indicated that contraceptive use at first intercourse was 79% among 15-19 year-old females,<sup>6</sup> an increase from 65% in the late 1980s and only 48% in the early 1980s.<sup>16</sup> Among 15-19 year-old females, 66% reported using condoms at their first voluntary sexual intercourse, 8% reported using birth control pills, and 5% reported using other methods.<sup>6</sup> The finding that condoms are the most common method at first intercourse is consistent with other national survey data:<sup>12, 13</sup> adolescents tend to “graduate” to hormonal methods as they become more sexually experienced. Whites are more likely than blacks or Hispanics to report use of contraceptives at first intercourse.<sup>7, 10</sup> Of interest are data from the 1995 NSFG survey that show that teen females whose partners are five or more years older are less likely to report contraceptive use (66%) at first voluntary intercourse than females whose partners are closer in age (77-81%). This pattern is possibly explained by a lower percentage of older partners who use condoms (estimated at 55%) compared with younger partners (estimated between 59-66%).<sup>6</sup>

### Contraceptive Use Among Sexually Active Youth

Overall, it is estimated that about three-quarters of sexually active female adolescents use some form of contraception, although they may not do so consistently.<sup>10, 17, 18</sup> According to the 1995 NSFG survey, only 8% of sexually active 15-19 year-olds reported not using any method of birth control (including rhythm, natural

family planning, condoms, and hormonal methods) in the three months preceding the survey,<sup>19</sup> compared with 2-5% of women in other age groups. The following is the percentage distribution of 15-19 year-old birth control users by method from the 1995 NSFG data:<sup>19</sup>

- oral contraceptive pill (44%);
- condom (37%);
- injectable (e.g., Depo-Provera<sup>®</sup>) (8-19%); and
- implant (i.e., Norplant<sup>®</sup>) (1-5%).

Injectables only became available for general use in the U.S. in 1992, so these 1995 data may underestimate their current use.

### Trends in Contraceptive Use

Contraceptive use appears to be increasing among male and female adolescents, especially condom use.<sup>6, 10, 12, 13, 19</sup> Data from the 1995 NSFG survey suggest a slight decline in the use of oral contraceptives among 15-19 year-old females (i.e., from 59% users in 1988 to 44% users in 1995).<sup>19</sup> Some of this decline may be associated with the introduction of injectables and implants to the U.S. market. These methods became available in the U.S. in the early 1990s, so it is possible that their prevalence will continue to increase, especially among youth who have difficulties with methods that require daily or behavioral compliance.

### Dual Use of Hormonal Contraceptives and Condoms

Hormonal contraceptives are more effective than condoms in pregnancy prevention. Dual use of hormonal methods and condoms is generally recommended for youth, because of the rising rates of some sexually transmitted diseases (STDs), particularly chlamydia.<sup>20</sup> However, the majority of sexually active youth in the U.S. are not dual users. Data from the 1995 NSFG survey showed that only 9% of sexually active 15-19 year-old females reported using both birth control pills and condoms. In this survey, dual use was higher among adolescent females than adults.<sup>19</sup>

### Consistent Contraceptive Use

Adolescent risk for pregnancy is associated not only with use of contraceptives but with consistent use.

Adolescents are more likely than adults to report inconsistent use of contraceptives. Data from the 1995 NSFG survey showed that:

- Among 15-19 year-old females who used any method of birth control, 23% reported “inconsistent” use (e.g., not always using a condom, missing birth control pills for more than one day).<sup>17</sup>
- About 15% of adults reported inconsistent use.<sup>17</sup>
- An examination of 1995 NSFG data that focused on “effective” birth control methods only (i.e., hormonal methods, the IUD, and sterilization) showed that only 23% of 15-17 year-olds and 31% of 18-19 year-olds reported uninterrupted use, compared with over 50% of women in older age groups.<sup>21</sup>

When adolescents are asked why they do not use contraception, they often say they did not expect to have sex. Far less frequently do they report that they cannot afford birth control, don't know how to obtain birth control, or don't know how to use birth control.<sup>5</sup> Injectable and implant hormonal methods are thought to hold promise for adolescents because their effectiveness does not depend on daily or behavioral compliance. However, a small longitudinal study suggests that more convenient methods may not entirely resolve the problem of adolescent non-compliance: in a study of 198 pregnant teens, failure to use contraceptives consistently was related to concerns about side effects and/or lack of motivation to prevent pregnancy.<sup>18</sup>

## ADOLESCENTS AND PREGNANCY RESOLUTION

### The Adolescent Population in the U.S.

In 1996, there were 19 million 10-14 year-olds and 18.4 million 15-19 year-olds. It is estimated that between the years 1995-2005 the number of 15-17 year-olds in the U.S. will increase by 15%, with the greatest increases in the non-white population (Table 1).<sup>22, 23</sup> If current fertility rates remain the same, it is estimated that there will be a 26% increase in the number of pregnancies among adolescents.<sup>15</sup>

TABLE 1  
Projected Shifts in Race/Ethnicity of U.S. Children, Younger than Age 18 Years, 1995–2005

Ethnicity/Race	1995	2005	Change (%)
White	45,732,900	44,208,100	-3
Black	10,178,500	11,013,000	8
Hispanic	9,599,700	12,466,800	30
Asian/Pacific			
Islander	2,555,600	3,563,000	39
Native American	673,300	713,000	6

Source: Kids Count Data Book. State profiles of child well-being. New York: The Annie E. Casey Foundation, 1997.

### Adolescent Pregnancy

It is estimated that in 1996 almost one million 15-19 year-olds became pregnant in the U.S. The 1996 rate of adolescent pregnancy is about 99 pregnancies/1000 15-19 year-olds, nearly twice the birthrate for teens.<sup>1</sup> Although about 11% of all 15-19 year-old females—and 20% of all sexually active 15-19 year-old females—become pregnant each year,<sup>24</sup> the cumulative risk of pregnancy for any cohort of females increases with each year. Thus, more than 40% of white adolescent and 63% of black adolescent females in the U.S. become pregnant before they reach the age of 20 years.<sup>15</sup> Recent data<sup>24</sup> about pregnant women younger than 20 years-old in the U.S. indicate that:

- Approximately half of the pregnancies are to white youth;
- Approximately 40% of the pregnancies are to females who are 17 years-old or younger; and
- Approximately 85% of the pregnancies are to unmarried youth.

### Adolescent Pregnancy Resolution

Data on pregnancy resolution—and pregnancy—in the U.S. are not exact because there are no national registries with data about age-specific abortions or pregnancy losses. It is estimated that:

- The rates of adolescent pregnancy, abortion, and childbearing are 2-3 times higher among blacks than whites.<sup>1, 24, 25</sup>
- Approximately 55% of adolescent pregnancies result in a livebirth (representing an increase in the percentage of pregnancies resulting in livebirths from the 1980s), about 32% are terminated by legal abortion, and approximately 13% result in spontaneous abortions.<sup>24</sup>

A recent economic analysis by Gans, et al.<sup>26</sup> estimated that adolescent pregnancy medical costs averaged \$440 for terminations and \$6,059 for hospital deliveries. Parents (especially mothers) and, to a lesser extent, friends and male partners, play an important role in how an adolescent resolves her pregnancy.<sup>27</sup> It also appears that the adolescent's perception of her future economic and educational opportunities influence her decisions about pregnancy resolution.<sup>4, 5, 15</sup> Adolescents from higher socioeconomic backgrounds and those who have high academic aspirations are most likely to terminate their pregnancies or, rarely, place their babies for adoption.<sup>4</sup>

## Trends in Adolescent Pregnancy and Pregnancy Resolution in the U.S.

### Adolescent Pregnancy

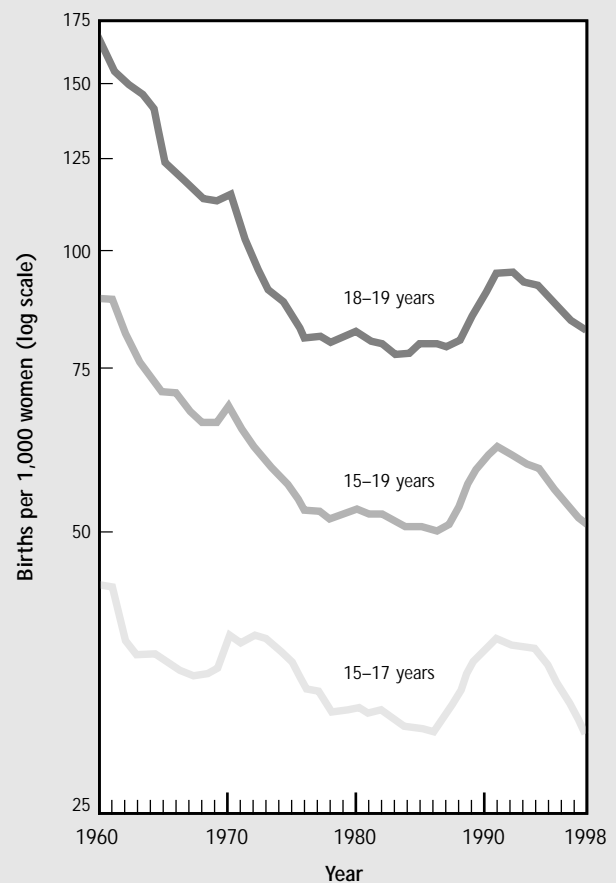
In 1996, the pregnancy rate for 15-19 year-olds was estimated as 99 pregnancies/1000 women; this rate is lower than any year since 1976.<sup>1</sup> Pregnancy rates have fluctuated since 1980. From 1980 to 1987, the pregnancy rate for adolescents fell by 4%. However, after 1987 the pregnancy rate began to climb; between 1987 and 1991, the birthrate increased by 23% and the abortion rate declined by 10%. Recent declines in abortion rates for teens, coupled with the declines in birthrates, indicate an overall decline of 15% in pregnancy rates from 1991-1996.<sup>1</sup> Pregnancy declines are thought to be related to the stabilization of the proportion of adolescents who are sexually experienced<sup>6, 10, 12</sup> and increased contraceptive use, especially condoms, at first intercourse.<sup>6, 10, 12, 19</sup>

### Adolescent Childbearing

In 1998, the birthrate for 15-19 year-olds was 51 births/1000 women.<sup>1</sup> The adolescent birthrate was much higher in the 1950s and the 1960s than it was in 1998. The highest recorded adolescent birthrate was 96 births/1000 15-19 year-olds in 1957. The adolescent birthrate dropped 45% between 1955 and 1985, then increased 24% between 1986 and 1991. By 1991, the adolescent birthrate was 62 births/1000 15-19 year-olds, its highest point in two decades (see Figure 2).<sup>1</sup>

The birthrates have steadily decreased in all adolescent age, race, and ethnic groups from 1991-1998 with

FIGURE 2  
Birth Rates for Teenagers by Age:  
United States, 1960–1998



Reprinted from: Ventura SJ, Matthews TJ, Curtin SC. Declines in teenage birth rates, 1991-98: Update of national and state trends. National vital statistics reports. Vol. 47, no. 26. Hyattsville, MD: National Center for Health Statistics, 1999.

the greatest declines among 10-14 year-olds (29% decline) and 15-17 year-olds (21% decline) compared with 18-19 year-olds (13% decline). Black 15-19 year-olds showed the greatest decline in birthrates from 1991-1998 (26%) compared with declines of 16% for American Indian, 14% for white, and 16% for Asian 15-19 year-olds. Hispanic 15-19 year-olds showed a 12% decline in birthrates from 1991-1998.<sup>1</sup>

## Geographic Trends in Adolescent Pregnancy and Childbearing in the U.S.

### *State-specific differences in adolescent pregnancy*

There are marked state differences in adolescent pregnancy, childbearing, and abortion rates<sup>1, 24, 25</sup> perhaps reflecting differences in state-specific health and economic legislation and services, cultural factors, and differences in the racial and ethnic composition of youth. Recent data indicate that:

- In 1992, adolescent pregnancy rates were highest in the West, followed by the South; rates were highest in California (159/1000), Nevada (147/1000) and Hawaii (138/1000).<sup>24</sup>
- In 1992, the lowest adolescent pregnancy rates were geographically scattered, with North Dakota (59/1000), New Hampshire (62/1000) and Minnesota (64/1000) reporting the lowest rates.<sup>24</sup>
- In 1992, adolescent abortion rates were highest in Hawaii (67/1000), California (64/1000), and New York (60/1000).<sup>24</sup>
- In 1992, the lowest adolescent abortion rates were in relatively rural states, with the very lowest rates in Utah (9/1000), North Dakota (13/1000), and Idaho (14/1000).<sup>24</sup>
- In 1997, adolescent birthrates were highest in the South and Southwest; the highest rates were in the District of Columbia (91/1000), Mississippi (74/1000), Arkansas (73/1000), Texas (72/1000), and Arizona (70/1000).<sup>1</sup>
- In 1997, adolescent birthrates were generally lowest in northern states; the lowest rates were in Vermont (27/1000), New Hampshire (29/1000), North Dakota (30/1000), Maine (32/1000), Massachusetts (32/1000), and Minnesota (32/1000).<sup>25</sup>

Birthrates for 15-19 year-olds declined in every state and the District of Columbia between 1991 and 1997.<sup>1</sup> The reductions in state-specific adolescent birthrates were variable but reflected—and often exceeded—the decline reported for the nation as a whole. Thus, while the U.S. adolescent birthrate fell by 16% between 1991 and 1997, rates fell by more than 16% in 22 states; declines in 12 states were 20% or higher. As Figure 3 shows, states with high and low adolescent birthrates experienced reductions between 1991 and 1996 and only one (i.e., Rhode Island) showed no significant reduction.<sup>25</sup>

### Rural Adolescents

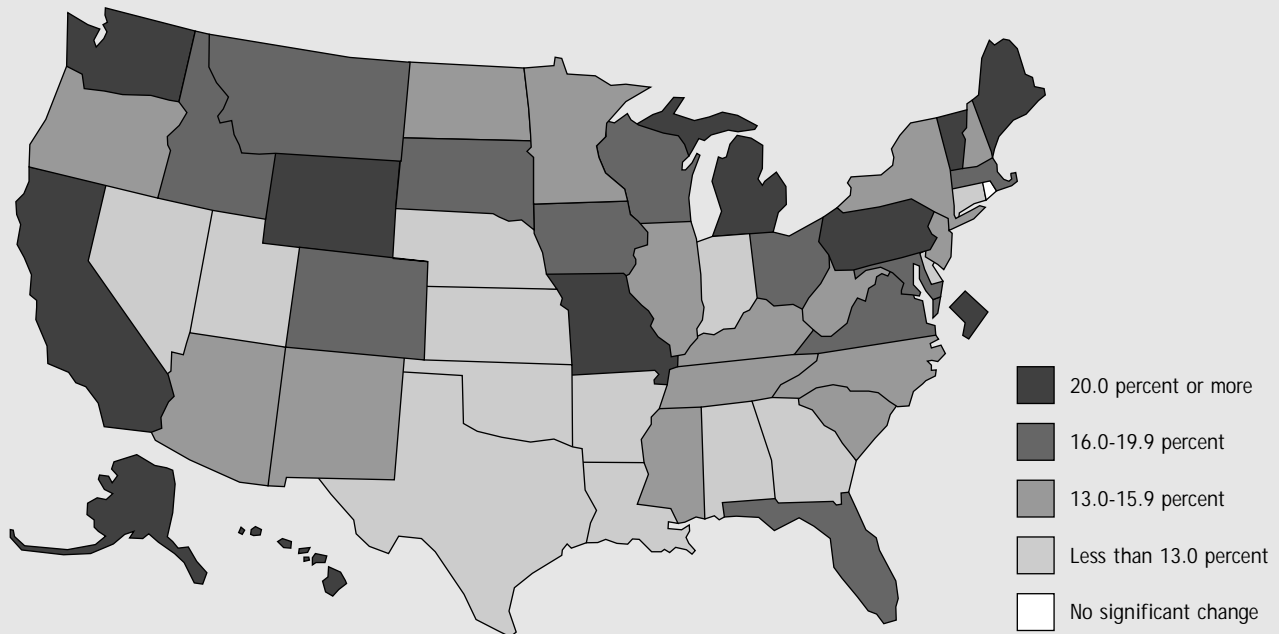
Much of the research about pregnant or parenting adolescents in the U.S. concerns urban youth; therefore, little is known about the social and economic pathways leading to pregnancy, abortion, and childbearing among rural youth. However, one-quarter of the nation's youth live in rural areas, which tend to be characterized by social isolation, shortages of medical services, and higher rates of poverty than urban areas. Rural states are also less likely to participate in social service programs, so that while rural youth are 22% more likely than non-rural youth to be living in poverty, they are 20% less likely to be on public assistance.<sup>28</sup> A study by Bennett, et al.<sup>29</sup> that examined 1990 data for eight southeastern states showed the birthrate was generally higher and the abortion rate lower for adolescents in rural compared with metropolitan areas.

### International Comparisons

The U.S. has had one of the highest rates of adolescent pregnancy and childbearing of any industrialized country for several decades, even though rates have been declining since the mid-1990s, as illustrated in Figure 4.<sup>15</sup>

Abortion rates are higher among all-age women in the U.S. compared with other countries.<sup>30, 31</sup> Because age at first intercourse is similar in the U.S. to other industrialized countries, and abortion rates are higher,<sup>30, 31</sup> it is assumed that the disparity in early childbearing rates may be related to less contraceptive use among youth in the U.S. and/or more positive attitudes toward early childbearing in the U.S. compared with other countries.<sup>32, 33</sup>

FIGURE 3  
Percent Decline in Teenage Birth Rates by State, 1991–1997



Reprinted from: Ventura SJ, Matthews TJ, Curtin SC. Declines in teenage birth rates, 1991-98: Update of national and state trends. National vital statistics reports. Vol. 47, no. 26. Hyattsville, MD: National Center for Health Statistics, 1999.

## ADOLESCENT CHILDBEARING

In 1998, approximately 500,000 15-19 year-olds gave birth, or 51 births/1000 adolescents.<sup>1</sup> Almost two-thirds of all births to adolescents in 1998 were to 18-19 year-olds.<sup>1</sup> Thus, adolescent childbearing is, and has historically been, concentrated among older youth. This concentration is likely to persist and grow because, while birthrates declined for all age groups in the 1990s, the greatest declines have been among younger compared with older adolescents. Birthrates for 18-19 year-olds are still higher than they were in the early and mid-1980s. National 1998 birth data show the following maternal age distributions:<sup>1</sup>

- The 1998 birthrate for adolescents younger than 15 years-old was 1.0 births/1000 women (its lowest rate since 1969), or 9,481 births to very young mothers.
- The 1998 birthrate for 15-17 year-olds was 30 births/1000 women (a record low for this age group), or 173,252 births.

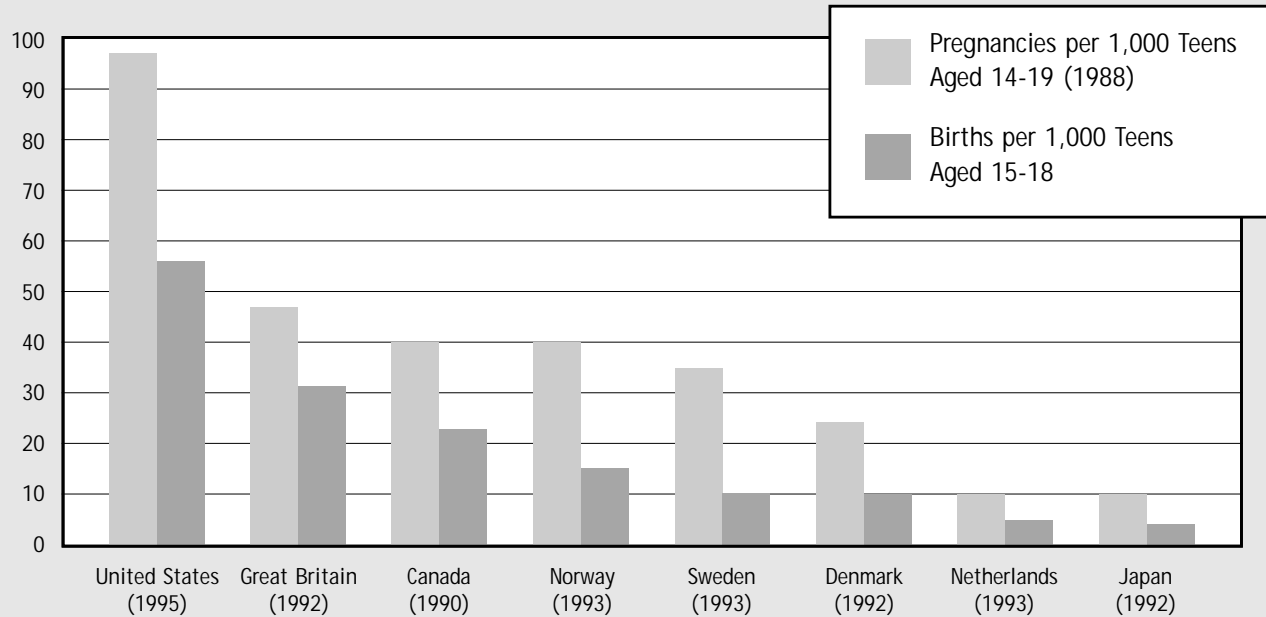
- The 1998 birthrate for 18-19 year-olds was 82 births/1000 women, or 311,724 births.

There are varying opinions about whether older adolescents are mature enough to handle the physical and social changes that come with childbearing. Considering that many 18-year-old mothers are pregnant during their final year of high school, it appears that births to older teens are, at minimum, disruptive of education goals<sup>3, 34, 35</sup> and interrupt employment opportunities.<sup>5, 15, 34</sup>

### Social Factors Associated with Adolescent Childbearing

National studies suggest that economic vulnerability is strongly associated with adolescent pregnancy<sup>36</sup> and that adolescent childbearing, in particular, is associated with family instability, declines in family income, and poor academic performance.<sup>3, 6, 15, 35, 37</sup> Such studies

FIGURE 4  
U.S. Teen Pregnancy and Birth Rates for U.S. and Other Countries



Reprinted with permission, National Campaign to Prevent Teen Pregnancy. *Whatever happened to childhood? The problem of teen pregnancy in the United States.* Washington DC: National Campaign to Prevent Teen Pregnancy, 1997.

include reports from the National Educational Longitudinal Study (NELS) of 1988 which followed a nationally representative cohort of eighth-graders until 1994,<sup>35</sup> the 1979 National Longitudinal Sample of Youth (NLSY), which followed a cohort of 14-21 year-olds and interviewed them annually until 1989,<sup>37</sup> and the 1995 NSFG cross-sectional survey which included a nationally representative sample of 1,396 15-19 year-olds.<sup>6</sup> The following are highlights from these three studies; consistent among them was the finding that the impact of social factors often varied by racial and ethnic group:

- According to the NELS, girls who dropped out of school were at 1.5 times greater risk for subsequent adolescent childbearing among whites and Hispanics (but not blacks) compared with girls who stayed in school.<sup>35</sup>
- The NLSY data showed that family instability, including divorce and remarriage, and loss of family income were associated with higher risk for adolescent childbearing.<sup>37</sup>
- Data from the 1995 NSFG survey indicated that, by age 19, females from two-parent families had half the risk of adolescent childbearing compared with youth who did not live with two biological or adoptive parents.<sup>6</sup>
- Lower socioeconomic status (SES) was associated with a decreased risk for childbearing among black adolescents and increased risk among Hispanic adolescents. SES was not associated with childbearing risk among white adolescents in the NLSY.<sup>37</sup>
- Lower grades and test scores, and limited education plans post high-school, were generally associated with higher childbearing risk among black, Hispanic, and white adolescents, but not consistently so in the NELS.<sup>35</sup>
- Maternal characteristics may be associated with adolescent childbearing. In the NSFG survey, one-third of the daughters of teen mothers had given birth compared with 11% of other teens;<sup>6</sup> others have also reported this association.<sup>38</sup> However, data from the NLSY showed that having a mother who had been a

teen mother was only associated with adolescent childbearing among whites.<sup>37</sup> Maternal education may also influence teen childbearing. According to the NSFG data, daughters of women who had not graduated from high school were more than twice as likely to become adolescent mothers compared with daughters of more educated women.<sup>6</sup>

### Non-marital Adolescent Childbearing

More than 80% of the pregnancies among 15-19 year-olds are to unmarried adolescents.<sup>24</sup> About 90% of the adolescents who have abortions and 79% of those who give birth are unmarried.<sup>1, 24</sup> Rates of non-marital childbearing have increased among all women in the U.S. in

the last several decades, but are highest among adolescents. While adolescent marital childbearing has never been high, in 1998 adolescent marital childbearing was at an all-time low.<sup>1</sup> Since 1950, non-marital births to teens increased 140% and increased 150% for women 20-44 years-old. In 1970, about 70% of adolescent mothers were married at delivery; in 1980 about 50% were married; and in 1998, 21% were married at the time of delivery (Figure 5).<sup>1</sup> Among all-age women in 1998, 67% were married at the time of delivery.<sup>1</sup>

### Adolescent Childbearing by Race/Ethnicity

Overall, adolescent pregnancy, birth, and abortion rates are 2-3 times higher in non-whites compared with whites (Figure 6). However, about two-thirds of all births, miscarriages and abortions in the U.S. to 15-19 year-olds are among whites.<sup>1, 24, 25</sup> Of all births to 15-19 year-olds in 1998:<sup>39</sup>

- 70% were among whites;
- 26% were among blacks;
- 2% were among American Indians;
- 2% were among Asians; and
- 25% were among youth of Hispanic ethnicity (all races included).

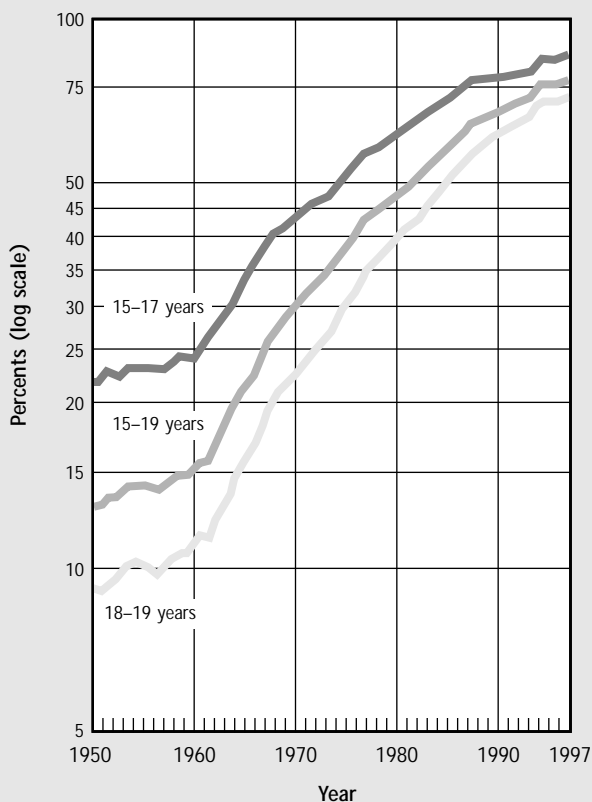
Births to females younger than 15 years are not common, but of the almost 10,000 births to such young women in the U.S. in 1998, racial distributions were different from those of 15-19 year-olds:<sup>39</sup>

- 51% were among whites;
- 45% were among blacks;
- 2% each were among American Indians and Asians; and
- 29% of births were to females of Hispanic ethnicity (all races included).

As a percentage of total childbearing during the teen years within races, whites have the lowest percentage. In 1997, 11% of all births to whites were among women younger than 20 years-old compared with 23% among blacks, 21% among American Indians, and 5% among Asians. Among Hispanic women who gave birth, 17% of those births were to women younger than 20 years at delivery.<sup>25</sup>

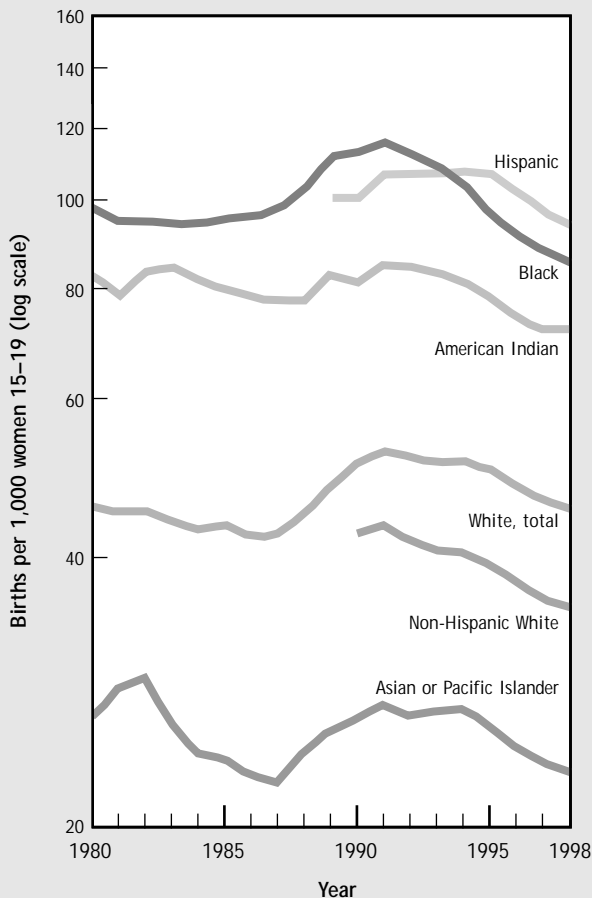
FIGURE 5

#### Percent of Births to Unmarried Teenagers by Age: United States, 1950–1997



Reprinted from: Ventura SJ, Matthews TJ, Curtin SC. Declines in teenage birthrates, 1991-97: national and state patterns. National Vital Statistics Reports. Vol. 27, no. 12. Hyattsville, MD: National Center for Health Statistics, 1998.

FIGURE 6  
Birth Rates for 15-19 year-olds by Race  
and Hispanic Origin: United States,  
1980-1998



Reprinted from: Ventura SJ, Matthews TJ, Curtin SC. Declines in teenage birth rates, 1991-98: Update of national and state trends. National vital statistics reports. Vol. 47, no. 26. Hyattsville, MD: National Center for Health Statistics, 1999.

## ABORTION AMONG ADOLESCENTS

The abortion rate was 30 abortions/1000 15-19 year-olds in 1995,<sup>40</sup> a decline since 1980 when the rate was 43 abortions/1000 15-19 year-olds.<sup>24</sup> Abortion data are often expressed as an abortion ratio, or the percent of pregnancies that either resolve in birth or abortion (i.e., do not terminate in spontaneous fetal loss). Recent data indicate:

- Approximately 37% of pregnancies among adolescents that end in either birth or abortion end in abortion.<sup>24</sup>

- Abortion ratios for 15-19 year-olds in 1992 were slightly higher than those for older women.<sup>24</sup>
- Approximately one-quarter of all legal abortions in the U.S. are performed for 15-19 year-olds.<sup>24</sup>
- The adolescent abortion rate in the U.S. is higher than in other developed countries.<sup>24</sup> For example, the abortion rate among 15-19 year-olds in Canada in 1993 was 21.5/1000.<sup>31</sup>
- Black teens have about 2.4 times the pregnancy rates and 2.7 times the abortion rates of white teens.<sup>24</sup>
- The abortion ratio is similar for black and white teens. However, for youth of Hispanic ethnicity, the abortion ratio is lower than the national average.<sup>24</sup>

More effective contraceptive use would decrease the number of abortions among adolescents. A 1994/1995 national survey of 9,985 all-age abortion patients showed that, of those who were 18 years-old or younger, 55% reported using contraceptives at the time of pregnancy, 25% had been prior users of contraceptives, and 19% never users (the rate of never use was lower for adult abortion patients).<sup>41</sup>

## ADOLESCENT ADOPTION IN U.S.

Information about adoption is incomplete in the U.S. because there are no national databases. In 1988, it was estimated that 1% of the babies born to never-married blacks and 3% of those born to never-married whites were placed for adoption.<sup>42</sup> Thus, it is reasonable to estimate that 2-5% of infants born to adolescents are formally adopted. There has been a marked decrease in placing infants for adoption in the past 30 years for all-age women in the U.S. Unfortunately, the processes affecting the decision to place a child are not frequently studied. In addition to formal adoptions, there are also "informal adoptions" among family members. Informal adoptions have also not been examined in-depth. Compared with adolescents who keep their infants, it is thought that adolescents who formally place their infants for adoption tend to be older, have stronger academic ambitions, come from families of higher SES, and are more likely to hold traditional attitudes about marriage and family formation.<sup>4</sup>

## REPEAT PREGNANCY

### Repeat Childbearing

Repeat childbearing is infrequently studied, although it is plausible that the socioeconomic, nutritional and other biologic risks of pregnancy are higher for adolescent multiparas than nulliparas. Between 1991-1997, repeat childbearing among adolescents declined 20% in the U.S., with the greatest declines among 15-17 year-old blacks (27%). (See Figure 7.) 1997 national birth data<sup>25</sup> indicated that:

- 22% of all births to adolescents were second or higher-order births (compared with 25% of all births in 1991).

- Over 100,000 adolescents had a repeat birth.
- 17% of adolescent mothers had a second or higher-order birth, resulting in a rate of 174 repeat births/1000 adolescent mothers.
- Of the almost 11,000 births to adolescents younger than 15 years, 3% were second or higher-order.

There is some racial and ethnic variation in the percentage of births that were repeat births among 15-19 year-olds. The percentage of repeat births among all adolescent births within racial categories was 20% for whites, 28% for blacks, 22% for American Indians, and 21% for Asians. Among births to Hispanic adolescents of all races, 25% were repeat births.

Adolescent multiparas have short pregnancy intervals which could affect maternal and infant health. A recent study of 3,400 first-time teenage mothers who received welfare in Chicago showed that 64% had at least one pregnancy during the follow-up period of about 29 months and 21% had two or more pregnancies.<sup>43</sup> Of the young mothers who were pregnant again, 35% did so within one year of the birth of their first child and 75% were pregnant again within two years. Three-quarters of the repeat pregnancies resulted in a live birth. Other data from Minnesota's vital records confirm that young multiparas have very short pregnancy intervals. A study of almost 10,000 adolescents who had repeat livebirths between 1980-1988 showed that:<sup>44</sup>

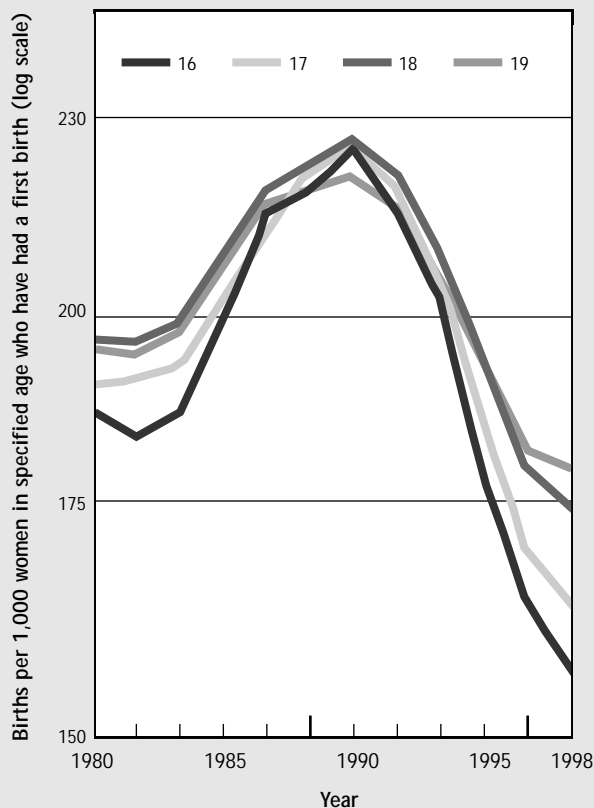
- 36% had pregnancy intervals shorter than 7 months;
- 26% had pregnancy intervals between 7-12 months;
- 17% had pregnancy intervals between 13-18 months; and
- 22% had pregnancy intervals interval longer than 18 months.

Teen primiparas with the lowest education, skills, and economic circumstances are most likely to have more than one birth during adolescence.<sup>43</sup> Several studies have also shown that adolescent mothers do not use effective contraceptive methods,<sup>18, 43, 45</sup> thus putting them at risk for rapid repeat pregnancy.

The maternal health consequences of rapid repeat pregnancy and childbearing during adolescence have not been extensively studied. Morbidity and mortality data for infants born to adolescent multiparas have also not been well-documented, however one study found the risk of preventable infant deaths to be twice as high among infants of adolescent multiparas compared with infants of primiparas.<sup>46</sup>

FIGURE 7

### Rate of Second Births to Teenagers Who Have Had a First Birth, 1985–1996



Reprinted from: Ventura SJ, Matthews TJ, Curtin SC. Declines in teenage birthrates, 1991-97: national and state patterns. National vital statistics reports. Vol. 47, no. 12. Hyattsville, MD: National Center for Health Statistics, 1998.

## Repeat Abortion

There are no complete U.S. data concerning adolescent repeat pregnancy or abortion. In Canada, 1975-1993 data suggest that 14% of 15-19 year-olds who had an abortion had already had at least one abortion previously.<sup>31</sup> It is not clear whether these data reflect the U.S. experience, however, because Canada has a lower rate of adolescent pregnancy and abortion and a different system of health-care delivery.

## CONTEMPORARY CONCERNS

### What Percentage of Adolescent Pregnancies are Intended?

Because adolescents are more likely than adults to terminate their pregnancies, it is reasonable to conclude that they have a higher rate of unwanted pregnancies.<sup>24</sup> However, the measure of unintended or unwanted pregnancies among women who choose to bring their pregnancies to term is fraught with methodological difficulties. Pregnancy intention is generally measured in two ways: through abortion statistics (i.e., aborted pregnancies are assumed to be unwanted) and through self-report. The most common question on national surveys about pregnancy intention is whether the woman wanted to be pregnant at the time she found out about her pregnancy or at the time she conceived. Often, such questions are asked about pregnancies that may have occurred as long as five years prior to the time of the survey,<sup>47</sup> thus responses are subject to recall and social desirability biases. And, while it is generally assumed that the majority of births to adolescents are unintended or unwanted, several writers and researchers question whether childbearing may be an adaptive strategy for impoverished youth, especially those who have few professional or educational aspirations.<sup>48-50</sup> The full measurement of pregnancy intention may require more subtle inquiry into pregnancy feelings, and, perhaps, ambivalence about pregnancy.<sup>51-53</sup>

Current data about pregnancy intention are based on the standard methodology. The following are estimated from 1995 NSFG data, where "unintended" pregnancy is defined as a pregnancy that was either mistimed or unwanted:<sup>54</sup>

- Among 15-44 year-olds, the distribution of all pregnancies was estimated as: 51% resolving in intended births, 23% resolving in unintended births, and 27% resolving in abortion.
- Among 15-19 year-olds, the distribution of all pregnancies was estimated as: 22% resolving in intended births, 43% resolving in unintended births, and 35% resolving in abortions.
- Among 15-44 year-olds, 49% of all pregnancies and 31% of all births were estimated to be unintended.
- Among 15-19 year-olds, 78% of all pregnancies and 66% of all births were estimated to be unintended.
- Among 15-44 year-olds, it was estimated that 54% of unintended pregnancies ended in abortion, compared with 45% of unintended pregnancies among 15-19 year-olds.

### Marriage and Paternity Associated with Adolescent Childbearing

Non-marital childbearing is common among pregnant adolescents: in 1997, 87% of 15-17 year-old mothers and 74% of 18-19 year-old mothers were unmarried at the time of delivery.<sup>1</sup> Older adolescents, white adolescents and those from families with higher socioeconomic circumstances are most likely to be married at the time of delivery.<sup>4</sup> It is not clear that marriage is good for adolescents because it may be related to higher lifetime parity and closer spacing of adolescent births.<sup>55</sup> Furthermore, early marriages are associated with marital dissolution and marriage may be associated with decreased educational attainment for adolescent girls.<sup>34, 55</sup>

### Male Involvement in Contraceptive Decision-making

While adolescent pregnancy has been a major public policy issue in the U.S. for nearly three decades, only recently has there been research about the roles and responsibilities of the male partner. The role of the male partner in contraceptive decision-making is an area that is receiving current attention. Male partners, for example, may play an important role in the consistent use of effective contraception, including condoms. The 1995 National Survey of Adolescent Males

(NSAM) showed that 56% of sexually active respondents reported having used condoms inconsistently or not at all.<sup>12</sup> The NSAM also showed that:<sup>6</sup>

- Approximately 14% of 15-19 year-old males reported having made a partner pregnant (6% of the sexually active males).
- Approximately one-fifth of the black and Hispanic youth compared with one-tenth of white youth reported having made a partner pregnant.
- Approximately 10% of black and Hispanic males reported being responsible for a birth compared with 5% of white males.

### Who are the Fathers of Infants Born to Adolescents?

There are few data about the men who parent with adolescents. Fathers, like the adolescent mothers, are likely to be poor and have low educational achievement.<sup>14</sup> The fathers do not necessarily co-habitate with the mothers or provide significant economic or emotional support. Child visitation among fathers, while infrequently studied, appears variable.<sup>56</sup>

Of current interest is the age of the fathers: there is concern both about broad age gaps between adolescent mothers and fathers as well as about the parenting experiences of adolescent males. It appears that many fathers of infants born to adolescents are older than the mothers, although there is no clear picture of these fathers because approximately 40% of the birth certificates of infants born to adolescents are missing data on the father's age.<sup>57, 58</sup> Data from the 1988 National Maternal and Infant Health Survey showed that 27% of 15-17 year-old mothers had partners five or more years older than themselves,<sup>59</sup> but only 8% of all births to 15-17 year-olds were to unmarried girls with partners who were five or more years older. It is unknown whether the relationships between female minors and older men are more likely to be predatory, or casual, than relationships between same-age partners. Or, it may be that older men provide the necessary economic resources to minor mothers that are not available from younger men.

Adolescent fatherhood is much rarer than adolescent motherhood. The national prevalence of adolescent fatherhood is estimated as 2% for whites, 5% for blacks, and 2% for Hispanic males.<sup>60</sup> Adolescent fatherhood is

highest among urban minority youth,<sup>61, 62</sup> perhaps as high as 10-15% among these youth. The antecedents and consequences of parenting reflect the same impoverished social, economic, and educational circumstances of young mothers.<sup>63</sup> Especially strong correlates of adolescent fatherhood are living in poverty,<sup>63, 64</sup> having a mother who had an adolescent pregnancy,<sup>38, 60, 62</sup> poor academic performance,<sup>64</sup> and other problem behaviors, including delinquency and substance use.<sup>62, 64-66</sup> A recent analysis of 824 sexually active male high school students suggests another potential, and alarming, correlate of adolescent fatherhood that deserves further study: a history of sexual violence.<sup>67</sup> In this sample, male adolescents who had a history of ever having been forced to have sex were 3.6 times more likely to be involved in a pregnancy than those without such a history.

## SUMMARY

Rates of adolescent childbearing and pregnancy are decreasing in the U.S. If the long-lasting hormonal contraceptives become popular with youth, it is possible that the rates will continue to decrease. However, early childbearing will continue to reflect a social selection process, with the poorest and most disenfranchised youth becoming mothers. The present social, medical, and economic challenges of adolescent pregnancy are thus likely to remain and will continue to reflect the persistence of class differences in access to the educational and economic rewards of society.

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## RESOURCES

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202-362-5580

ETR Associates  
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Santa Cruz, CA 95061-1830  
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