## GUTTMACHER

# Pregnancy Rates Among U.S. Women And Their Partners in 1994 

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#### Abstract

Context: When rates of pregnancy, birth and abortion are calculated only for the women involved, men's role in reproduction is ignored, resulting in limited understanding of their influence on these outcomes.


Methods: Data from the 1995 National Survey of Family Growth and from the 1994-1995 Alan Guttmacher Institute Abortion Patient Survey were combined with national natality statistics to estimate pregnancy rates in 1994 for women and their male partners, by age and marital status at the time of conception.

Results: Nine percent of both men and women aged 15-44 were involved in conceiving a pregnancy in 1994 (excluding those resulting in miscarriages). Pregnancy levels were highest among women aged 20-24 and among male partners aged 25-29. Men younger than 20 were involved in about half as many pregnancies as were women this age ( $9 \%$ compared with 18\%). In contrast, men aged 35 and older were involved in roughly twice as many pregnancies as were similarly aged women (19\% compared with 9\%). Three out of every four pregnancies in 1994 resulted in a birth. However, $47 \%$ of pregnancies involving men younger than 18 ended in abortion, compared with about $34 \%$ of those involving men aged 40 and older. In comparison, $31 \%$ of pregnancies among women younger than 18 resulted in abortion, while $39 \%$ of those among women aged 40 and older were terminated.

Conclusion: The overall rate at which men were involved in causing a pregnancy is similar to the pregnancy rate among women. Men are typically older than women when they are involved in a pregnancy, however. This implies that men may bring more experience and resources to the pregnancy experience.

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Pregnancy, birth and abortion rates are typically calculated for women only. This focus reflects an interest in the biological and health aspects of pregnancy, as well as the greater historical emphasis placed on women's fertility and childrearing behavior than on that of men. This female perspective is changing, however, as national and international interest in men's sexual and reproductive behavior and in their roles as fathers increases. ${ }^{1}$

Even though men have a biological role in conception, it is only women who have the physical experience of pregnancy, birth and abortion. Thus, the linkage of these events to women is much clearer than it is for men. However, because of incomplete data, our
knowledge about the men involved in these events is extremely limited. For example, the father's age, race and Hispanic ethnicity are missing on 15-16\% of birth certificates, $\boldsymbol{\underline { \mathbf { 2 } }}$ and there are no national data on the men responsible for pregnancies that end in induced abortions.

Surveys of men generally undercount pregnancies for which they are responsible, for a number of reasons: Men may not know about pregnancies they have caused that ended in abortion, and they may not even know about children they have fathered. In addition, men may not report fathering children with whom they are not living or in close contact. Moreover, higher proportions of men than women are excluded from common residential surveys because they are in the military or incarcerated. Finally, men are even more likely than women to underreport pregnancies that were terminated. ${ }^{\mathbf{3}}$

In the absence of complete national data on the characteristics of men involved in pregnancies, any attempt to learn more about this subject requires the creative use of other data sources. In a prior effort, to supplement the age data missing from birth certificates, we used information from women who responded to the National Maternal and Infant Health Survey to calculate the number of births in 1988, by the age of the father. $\boldsymbol{\underline { 4 }}$ Fathers for whom age was not reported on the birth certificate were younger than those for whom age was reported, indicating the importance of obtaining information on all fathers, rather than assuming that those with missing information are similar to those for whom data are reported.

Two new data sources that are now available provide a fuller (although still very limited) picture of men who father children or are responsible for pregnancies ending in induced abortion. In 1995, Cycle 5 of the National Survey of Family Growth (NSFG) asked a nationally representative group of women who had given birth for the characteristics of their babies' fathers. In 1994-1995, The Alan Guttmacher Institute (AGI) surveyed women having abortions in the United States and asked them for the age of the man by whom they had become pregnant. Such indirect information is not as accurate as information collected directly from men. $\mathbf{5}^{\text {Nonetheless, together these }}$ surveys provide estimates not otherwise available-the ages of men involved in all births and abortions in the United States.

We have used these new data sources to supplement national vital statistics information from birth certificates in order to estimate pregnancy, birth and abortion rates by age and marital status for women and their male partners in 1994. These estimates can provide insight into several important questions: What are the numbers and proportions of men of different ages and marital statuses responsible for pregnancies, births and abortions? How do these numbers compare with those for women? And how do the characteristics of men involved in pregnancies compare with those of women?

## DATA AND METHODS

## Births

We used national vital statistics collected by the National Center for Health Statistics (NCHS) ${ }^{\mathbf{6}}$ to determine the number of births to women by age at conception. We
included births that occurred from October 1994 through September 1995 (i.e., nine months after J anuary-December 1994) and estimated the number of births by age at conception, by adjusting the age reported at birth back nine months. $\frac{7}{}$

While the NCHS documents marital status at the time of birth, some births included as marital were actually conceived premaritally. To estimate the number of births by the woman's marital status at the time of conception, we calculated the age-specific distribution of births according to marital status at conception as reported by NSFG respondents.* We examined births for the five years before women were interviewed, and applied these age-specific marital-status distributions to the number of births by women's age at conception, estimated from vital statistics.

We calculated mother's age at conception in the NSFG from the respondent's reported age, the date she gave birth and the gestation of the pregnancy. Her marital status at the time of conception was categorized as unmarried if she was never married, divorced, separated, widowed or cohabiting. Married women include only those who were married and not separated when the pregnancy occurred. We assumed that the marital status of the father at conception was the same as that of the woman.

For each pregnancy reported in the five years before the NSFG, respondents were asked "How old was the father at the time you became pregnant?" To estimate the number of births according to father's age at conception, we applied the percentage distributions from the NSFG of the father's age, reported for each mother's age-and-marital-status subgroup, to the estimated number of births in that age-group for women at conception and according to marital status at conception.

Father's age was reported for all but 100 unweighted cases (or $2.3 \%$ of the weighted births) in the NSFG. Women not reporting father's age tended to be younger, unmarried, black or Hispanic, less educated and of lower parity. We imputed father's age for these missing cases using an unweighted hot-deck procedure that took such differential reporting into account. ${ }^{\mathbf{8} 8}$ Birthrates for fathers given in this article, therefore, differ from those published by the NCHS, not only because of differences in time period and the measurement of age, but also because NCHS assumed that the age of fathers for whom age was not stated ( $16 \%$ of all births in 1994) was the same as that of those for whom age was stated. $\underline{\mathbf{9}}$


#### Abstract

ABORTIONS The number of pregnancies in 1994 that ended in abortion, and the age of women when these pregnancies were conceived, were taken from national estimates of the number and age of women having abortions during April 1994-March 1995. $\mathbf{1 0}$ We estimated the age of women at conception by adjusting age back an average of three months from the time of the abortion. $\underline{\underline{11}}$

To estimate the marital status at conception for women who conceived pregnancies in 1994 that ended in abortion, we assumed that their marital status at the time of the abortion was the same as at the time of conception. Using data tabulated from AGI's nationally representative Abortion Patient Survey, which involved 9,985 women who obtained induced abortions in 1994-1995, we applied the age-specific percentages of women who were married or unmarried at the time of the procedure to the estimated national number of abortions to women in each age-group. $\underline{\mathbf{1 2}}$ We assumed that the


marital status of the man by whom a woman having an abortion had become pregnant was the same as that of the woman.

For information on the age of men involved in conceptions that resulted in abortion, we also used the AGI survey data. The survey asked women the age of the man by whom they had become pregnant, which was reported in all but $3.4 \%$ of cases. (In the latter instances, we imputed the age of the male partner by employing the same hotdeck procedure used to impute the birth estimates.) We tabulated the percentage distribution of male partners by age for each of the age-and-marital-status subgroups of women in the AGI survey. To estimate the number of conceptions in 1994 that ended in abortion, according to the male partner's age and marital status, we applied these distributions to the estimated number of women in each age-and-marital-status subgroup who had an abortion.

## PREGNANCIES

To calculate the total number of pregnancies, we added our estimates for conceptions resulting in births and those ending in induced abortion. Miscarriages were not included. ${ }^{\ddagger}$ The numbers of pregnancies and the pregnancy rates that we present here differ slightly from those for women given in a previous article. $\frac{\mathbf{1 3}}{}$ In earlier estimates, pregnancies that ended in 1994 were included, and age and marital status were measured at outcome. The estimates we present are for pregnancies that began in 1994, and are classified by age and marital status at conception.

Pregnancy rates (pregnancies per 1,000 women and per 1,000 men of reproductive age) were computed as the total number of pregnancies divided by the total number of women or men aged 15-44, according to Census Bureau estimates of the U.S. population by age and sex, as of J uly 1, 1994. $\underline{\mathbf{1 4}}^{-1}$ Because of the limited number of cases at older ages, we used the number of men and women aged 40-44 as the denominator for rates among those aged 40 and older. However, pregnancy rates among individuals aged 45 and older fall less rapidly for men than for women. For instance, in 1994, births to women aged 40-44 accounted for 96\% of all births among women aged 40 and older, while men in this age group fathered roughly $73 \%$ of all births among men aged 40 and older. $\mathbf{1 5}$ By using the same population age-groups for both women and their partners, we are slightly overstating the rates of pregnancy involvement for all men and for men aged 40-44, since all of the pregnancies caused by men older than 44 are represented in the numerator, but men older than 44 are not represented in the denominator.

To estimate the number of women and men aged 15-44 in 1994 by marital status, we applied the percentage distributions by marital status (married or unmarried) for age-and-sex-specific subgroups to the Census Bureau's estimate of the total number of persons by age and sex as of J uly 1, 1994. The marital status distributions were derived by calculating an average from the 1993, 1994 and 1995 March Current Population Surveys. 16

To estimate the denominators representing those who are sexually experienced, we took the percentage of men who had ever had intercourse, by age and sex, from the 1995 National Survey of Adolescent Males프 (for men younger than 20) and the 1991 National Survey of Men표 (for men 20 and older). We calculated the percentage of
women who ever had intercourse after menarche, by age at interview, from the 1995
NSFG (for women aged 15-44):

| Age-group | Men | Women |
| :--- | :--- | :--- |
| $15-17$ | $44 \%$ | $39 \%$ |
| $18-19$ | $77 \%$ | $71 \%$ |
| $20-24$ | $90 \%$ | $89 \%$ |
| $25-29$ | $95 \%$ | $96 \%$ |
| $30-34$ | $98 \%$ | $97 \%$ |
| $35-39$ | $98 \%$ | $99 \%$ |
| $>=40$ | $98 \%$ | $99 \%$ |

(For men aged 40 and older, since there were no data available, we assumed that the percentage who had ever had intercourse equaled that for those aged 35-39.)

We then applied these percentages to Census Bureau estimates of these populations, by age and sex, in 1994. We assumed that all married persons are sexually experienced, and we subtracted their numbers from the total number of sexually active women or men in each age-and-sex-specific subgroup to derive the number of unmarried women and men who are sexually experienced.

## RESULTS

Nearly nine out of every 100 men aged 15-44 were involved in a pregnancy in 1994: There were 66 conceptions resulting in a birth per 1,000 men in this age range, and 24 conceptions ending in an induced abortion per 1,000 (Table 1). (Conceptions ending in miscarriage are not included.) These overall rates are essentially the same for women aged 15-44.

| Table 1. Number of pregnancies, births and abortions per 1,000 men and women, by marital status, sexual experience and age-group (all at the time of conception), 1994 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Characteristic | Men |  |  | Women |  |  |
|  | Pregnancy rate | Birthrate | Abortion rate | Pregnancy rate | Birthrate | Abortion rate |
| OVERALL |  |  |  |  |  |  |
| Total | 89.4 | 65.7 | 23.7 | 90.0 | 66.1 | 23.9 |
| <20* | 51.6 | 30.6 | 21.0 | 110.0 | 74.5 | 35.5 |
| <18† | 28.6 | 15.0 | 13.6 | 86.2 | 59.4 | 26.8 |
| 18-19 | 87.1 | 54.6 | 32.5 | 146.4 | 97.5 | 48.9 |
| 20-24 | 130.4 | 87.1 | 43.3 | 164.8 | 112.7 | 52.1 |
| 25-29 | 150.6 | 115.6 | 35.0 | 143.2 | 111.2 | 32.0 |
| 30-34 | 108.1 | 88.2 | 19.9 | 93.7 | 75.9 | 17.8 |
| 35-39 | 62.9 | 48.7 | 14.2 | 38.1 | 28.4 | 9.6 |
| >=40 $\ddagger$ | 33.2 | 22.0 | 11.2 | 7.4 | 4.5 | 2.9 |
| MARRIED |  |  |  |  |  |  |
| Total | 104.9 | 95.4 | 9.5 | 94.6 | 86.0 | 8.6 |
| <20* | 395.5 | 364.7 | 30.8 | 453.7 | 429.0 | 24.7 |
| <18 | 308.0 | 259.5 | 48.5 | 753.4 | 711.5 | 41.8 |
| 18-19 | 411.0 | 383.4 | 27.6 | 397.2 | 375.8 | 21.5 |
| 20-24 | 240.2 | 219.9 | 20.3 | 243.7 | 223.2 | 20.4 |
| 25-29 | 202.8 | 188.6 | 14.2 | 178.7 | 163.9 | 14.8 |
| 30-34 | 126.7 | 117.0 | 9.7 | 108.6 | 99.8 | 8.8 |


| 35-39 | 69.5 | 62.2 | 7.3 | 39.5 | 33.9 | 5.6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| >=40 $\ddagger$ | 25.8 | 19.8 | 6.0 | 5.7 | 3.8 | 1.9 |
| UNMARRIED |  |  |  |  |  |  |
| Total | 76.7 | 41.4 | 35.3 | 85.3 | 46.1 | 39.2 |
| <20* | 47.9 | 27.0 | 20.9 | 96.8 | 60.8 | 36.0 |
| <18 | 27.9 | 14.4 | 13.5 | 79.6 | 53.0 | 26.7 |
| 18-19 | 79.6 | 47.0 | 32.6 | 125.0 | 73.7 | 51.3 |
| 20-24 | 107.4 | 59.2 | 48.2 | 133.3 | 68.5 | 64.8 |
| 25-29 | 109.5 | 58.2 | 51.3 | 101.5 | 49.3 | 52.2 |
| 30-34 | 79.5 | 44.0 | 35.5 | 66.0 | 31.6 | 34.4 |
| 35-39 | 49.7 | 22.0 | 27.7 | 35.0 | 16.7 | 18.3 |
| >=40 $\ddagger$ | 51.9 | 27.6 | 24.3 | 11.3 | 6.1 | 5.3 |
| EVER HAD INTERCOURSE |  |  |  |  |  |  |
| Total | 99.4 | 73.1 | 26.4 | 100.6 | 74.0 | 26.7 |
| $<20 *$ | 91.1 | 54.0 | 37.1 | 216.4 | 146.4 | 69.9 |
| <18 | 65.6 | 34.5 | 31.1 | 228.0 | 157.1 | 70.9 |
| 18-19 | 113.5 | 71.1 | 42.3 | 206.8 | 137.7 | 69.1 |
| 20-24 | 144.8 | 96.7 | 48.1 | 186.2 | 127.3 | 58.9 |
| 25-29 | 158.2 | 121.5 | 36.7 | 149.8 | 116.3 | 33.5 |
| 30-34 | 110.3 | 90.0 | 20.3 | 96.2 | 77.9 | 18.3 |
| 35-39 | 64.4 | 49.8 | 14.6 | 38.6 | 28.8 | 9.8 |
| >=40 $\ddagger$ | 34.0 | 22.5 | 11.5 | 7.5 | 4.6 | 3.0 |
| EVER HAD INTERCOURSE, UNMARRIED |  |  |  |  |  |  |
| Total | 93.9 | 50.7 | 43.2 | 108.4 | 58.5 | 49.8 |
| $<20 *$ | 85.3 | 48.1 | 37.2 | 197.7 | 124.2 | 73.5 |
| <18 | 64.2 | 33.2 | 31.0 | 214.2 | 142.5 | 71.7 |
| 18-19 | 104.4 | 61.6 | 42.8 | 183.0 | 107.9 | 75.1 |
| 20-24 | 122.0 | 67.3 | 54.7 | 158.9 | 81.6 | 77.3 |
| 25-29 | 119.8 | 63.7 | 56.1 | 112.2 | 54.5 | 57.7 |
| 30-34 | 83.8 | 46.4 | 37.4 | 71.3 | 34.2 | 37.2 |
| 35-39 | 53.5 | 23.7 | 29.8 | 36.6 | 17.5 | 19.1 |
| >=40 $\ddagger$ | 56.6 | 30.1 | 26.5 | 12.0 | 6.4 | 5.6 |
| *Denominator for rates is those aged 15-19. †Denominator for rates is those aged $15-17$. $\ddagger$ Denominator for rates is those aged 4044. Note: Pregnancy rate data exclude miscarriages. |  |  |  |  |  |  |

Men tended to be older than women when involved in a pregnancy.의 Pregnancy rates associated with men aged 24 and younger were substantially lower than those for women the same age, but were higher than those for women at older ages (Figure 1). Men aged 25-29 had the highest rate of involvement in a pregnancy, while the pregnancy rate peaked for women 20-24 years old.

Figure 1. Number of pregnancies per 1,000 men and women, by outcome, according to age at conception
Rate


Only 9\% of all pregnancies involved men younger than 20, compared with $18 \%$ for women in this age-group (Table 2). In contrast, 9\% of pregnancies conceived in 1994 were to women aged 35 or older, while $19 \%$ involved men in this age range.

Table 2. Percentage distribution of pregnancies, by age at conception, according to marital status at conception and sex

| Age | Overall ( $\mathrm{N}=5,334,300$ ) |  | Married ( $\mathrm{N}=2,815,400$ ) |  | Unmarried$(\mathrm{N}=2,518,800)$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Men | Women | Men | Women | Men | Women |
| <20 | 8.7 | 17.7 | 1.4 | 5.1 | 17.0 | 31.7 |
| <18 | 2.9 | 8.4 | 0.2 | 1.3 | 6.1 | 16.2 |
| 18-19 | 5.8 | 9.3 | 1.2 | 3.8 | 10.9 | 15.5 |
| 20-24 | 22.8 | 27.9 | 13.8 | 22.3 | 32.8 | 34.1 |
| 25-29 | 27.2 | 25.7 | 30.5 | 32.8 | 23.4 | 17.7 |
| 30-34 | 22.4 | 19.5 | 30.0 | 27.9 | 13.8 | 10.2 |
| 35-39 | 12.9 | 7.9 | 17.9 | 10.6 | 7.3 | 4.9 |
| 3/440 | 6.1 | 1.4 | 6.4 | 1.4 | 5.7 | 1.4 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Note: All data exclude miscarriages.

We found a similar age pattern when we restricted our estimates only to men and women who had ever had intercourse. Sexually experienced adolescent men and those in their early 20s were much less likely than comparable young women to be involved in a pregnancy (Table 1). Among sexually experienced teenagers younger than 18 , the pregnancy rate associated with men ( 66 pregnancies per 1,000) was only $29 \%$ the rate among women (228 pregnancies per 1,000). Among those aged 18-19, men's pregnancy involvement was just 55\% the rate among women (114 vs. 207 per 1,000), while among 20-24-year-olds, the male rate was $78 \%$ the female rate ( 145 vs .186 per $1,000)$. At ages 25-29, the rates for men and women were almost equal, while at older

## PREGNANCY OUTCOME

Three out of every four pregnancies in 1994 resulted in a birth (Table 3). Among men, the proportion of pregnancies ending in a birth was lowest (53\%) among those younger than 18 and highest ( $82 \%$ ) among those aged 30-34. Among women, the highest proportion of pregnancies resulting in a birth (81\%) was also among those aged 30-34, while the lowest proportion (61\%) was among those aged 40 and older.

Table 3. Percentage distribution of estimated number of pregnancies,

| Marital status and <br> age | Men |  |  | Women | Total |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  | Births | Abortions | Births | Abortions |  |

OVERALL

| Total | $\mathbf{7 3 . 5}$ | $\mathbf{2 6 . 5}$ | $\mathbf{7 3 . 5}$ | $\mathbf{2 6 . 5}$ | $\mathbf{1 0 0 . 0}$ |
| :--- | ---: | ---: | ---: | ---: | ---: |
| $<20$ | 59.3 | 40.7 | 67.7 | 32.3 | 100.0 |
| $<18$ | 52.6 | 47.4 | 68.9 | 31.1 | 100.0 |
| $18-19$ | 62.7 | 37.3 | 66.6 | 33.4 | 100.0 |
| $20-24$ | 66.8 | 33.2 | 68.4 | 31.6 | 100.0 |
| $25-29$ | 76.8 | 23.2 | 77.6 | 22.4 | 100.0 |
| $30-34$ | 81.6 | 18.4 | 81.0 | 19.0 | 100.0 |
| $35-39$ | 77.4 | 22.6 | 74.7 | 25.3 | 100.0 |
| $>=40$ | 66.2 | 33.8 | 60.7 | 39.3 | 100.0 |

MARRIED

| Total | 90.9 | 9.1 | 90.9 | 9.1 | $\mathbf{1 0 0 . 0}$ |
| :--- | ---: | ---: | ---: | ---: | ---: |
| $<20$ | 92.2 | 7.8 | 94.6 | 5.4 | 100.0 |
| $20-24$ | 91.6 | 8.4 | 91.6 | 8.4 | 100.0 |
| $25-29$ | 93.0 | 7.0 | 91.7 | 8.3 | 100.0 |
| $30-34$ | 92.3 | 7.7 | 91.9 | 8.1 | 100.0 |
| $35-39$ | 89.5 | 10.5 | 85.9 | 14.1 | 100.0 |
| $>=40$ | 76.7 | 23.3 | 67.0 | 33.0 | 100.0 |

UNMARRIED

| Total | 54.0 | $\mathbf{4 6 . 0}$ | $\mathbf{5 4 . 0}$ | $\mathbf{4 6 . 0}$ | $\mathbf{1 0 0 . 0}$ |
| :--- | ---: | ---: | ---: | ---: | ---: |
| $<20$ | 56.4 | 43.6 | 62.8 | 37.2 | 100.0 |
| $<18$ | 51.7 | 48.3 | 66.5 | 33.5 | 100.0 |
| $18-19$ | 59.0 | 41.0 | 59.0 | 41.0 | 100.0 |
| $20-24$ | 55.1 | 44.9 | 51.4 | 48.6 | 100.0 |
| $25-29$ | 53.1 | 46.9 | 48.5 | 51.5 | 100.0 |
| $30-34$ | 55.3 | 44.7 | 47.9 | 52.1 | 100.0 |
| $35-39$ | 44.2 | 55.8 | 47.7 | 52.3 | 100.0 |
| $>=40$ | 53.2 | 46.8 | 53.4 | 46.6 | 100.0 |

Pregnancies in which the man involved was younger than 20 were much more likely to end in abortion than were those in which the woman was younger than 20 , and the difference was greatest when those involved were not yet 18 . Some $47 \%$ of pregnancies in which the man involved was younger than 18 ended in abortion, compared with 31\% of those among women of similar age. Conversely, pregnancies in which the man involved was 35 or older are somewhat less likely to end in abortion than are those
involving women in the same age-groups. Among men and women aged 25-34, 18-23\% of pregnancies ended in abortion.
-Marital pregnancies. In 1994, some 2.8 million pregnancies were conceived within marriage ( $53 \%$ of all pregnancies). Men in each age-group were less likely than women of the same ages to be married. Therefore, as can be seen in Table 1, the overall pregnancy rate associated with married men was slightly higher than the rate among married women ( 105 pregnancies per 1,000 vs. 95 per 1,000).

On average, men involved in marital pregnancies were older than women having marital conceptions. In 1994, 15\% of pregnancies involving married men were to those younger than 25 , compared with $27 \%$ of conceptions involving married women (Table 2). In contrast, $24 \%$ of conceptions involving married men were to those 35 and older, compared with $12 \%$ among married women in this age-group.

Married adolescents-whether male or female-were the most likely group to be involved in a pregnancy. In 1994, an estimated $40 \%$ of married adolescent men were involved in a pregnancy, and 45\% of married adolescent women became pregnant (Table 1).

However, marital pregnancies in which the man involved is younger than 20 are slightly more likely to end in abortion than are those among women the same age (8\% vs. $5 \%$, respectively, Table 3). Marital pregnancies in which the man is aged 35 or older are much less likely to end in abortion (11-23\%) than are those among women in these age-groups (14-33\%).
-Nonmarital pregnancies. In 1994, there were 32.8 million unmarried men and 29.5 million unmarried women aged 15-44, of whom 26.8 million men and 23.2 million women were sexually experienced (not shown). These men and women were involved in 2.5 million pregnancies: a rate of 77 pregnancies per 1,000 unmarried men and 94 pregnancies per 1,000 sexually experienced unmarried men, compared with 85 pregnancies per 1,000 unmarried women and 108 pregnancies per 1,000 unmarried sexually experienced women (Table 1).

Unmarried adolescent men and those aged 24 and younger were less likely to be involved in a pregnancy than were unmarried women of similar ages. Consequently, although unmarried sexually experienced teenage men outnumber their female counterparts ( 5.0 vs. 4.0 million, respectively), $17 \%$ of nonmarital conceptions were associated with men aged 15-19, compared with $32 \%$ among adolescent women (Table 2).

Pregnancy involvement was less common for sexually experienced unmarried men and women than for married men and women in each age-group younger than 40 . However, there were fewer married men and women in the younger age-groups (for whom rates were fairly high) than there were unmarried men and women: Only 22\% of married men and $27 \%$ of married women aged 15-44 were younger than 30 , compared with $62 \%$ of unmarried sexually experienced men and $58 \%$ of unmarried sexually experienced women (not shown). As a result of these age-differences, the rate at which all sexually experienced unmarried men aged 15-44 were involved in a pregnancy was only slightly lower than that among married men ( 94 per 1,000 vs. 105 per 1,000), while the pregnancy rate among all sexually experienced unmarried women was higher

Almost half (48\%) of nonmarital conceptions in which the man involved was younger than 18 ended in abortion, compared with $34 \%$ of conceptions among women in this age range (Table 3). Moreover, while marital pregnancies involving men aged 35 or older were less likely than those involving women of that age to end in abortion, there was little difference between men and women aged 35 or older in the proportion of nonmarital pregnancies that ended in abortion.

## DISCUSSION

The data presented in this article are not ideal. In particular, they refer only to men's physical involvement in conception, not to their personal, social or economic involvement in pregnancy, abortion, birth or childrearing. They are estimates based on women's reports of the age of their partner. To make use of these reports, we had to assume that the women knew this information about their partner and that they reported it accurately. Indeed, women's reports of their partner's age have generally been found to be highly accurate. 19

We also assumed that men's marital status at a pregnancy's conception was the same as women's. This is likely to be accurate for most cases, especially since we have used only two classifications-married vs. unmarried-and since the unmarried category includes individuals who are separated, divorced, widowed or never married.

While our findings offer some preliminary insights into men's involvement in pregnancy, the clear limitations of the data available for calculating pregnancy, birth and abortion rates associated with men mean that these estimates should be interpreted with caution. They also highlight the gaps in our knowledge about men's involvement in pregnancy and the need to improve the collection of relevant data directly from men.

In demographic terms, pregnancy appears to be a similar experience for men and women: About one in 10 men and women aged 15-44 are involved in a pregnancy each year; rates are highest among men and women younger than 30 ; and at any given age (with the exception of those aged 40 and older), rates for married men and married women are higher than they are for sexually experienced unmarried men and women. However, since unmarried men and women who are sexually experienced are more heavily concentrated at the younger ages, their overall levels of pregnancy are similar to those among married men and women aged 15-44.

Men involved in a pregnancy typically are a later stage of their lives than are women when they become pregnant. Pregnancy rates associated with men aged 24 and younger are lower than those among women of the same age, but rates among men exceed those among women at older ages. Teenage women account for twice the proportion of pregnancies as are attributable to adolescent men. The age difference in pregnancy involvement is especially large among unmarried men and women. Other recent studies have documented age differences between mothers and their sexual partners: $=\mathbf{2 0}$ Males are generally older than the women they marry or have sex with. This may imply an advantage for men facing a pregnancy, in that they may be more mature, more educated and have greater financial resources. $\underline{\mathbf{2 1}}$

It is not readily apparent, however, why adolescent men have lower levels of pregnancy involvement than do teenage women, especially since more of them have had intercourse. It could be that fewer young men than reported have actually had sex, and that more women than reported have had intercourse. Indeed men do tend to overreport, and women to underreport, their sexual activity. $\underline{\mathbf{2 2}}$

Another factor could be that among sexually experienced individuals, men have sex less often than young women. In 1988, for example, sexually experienced, nevermarried men aged 15-19 had sex, on average, during six months of the year, compared with eight months among women of the same age. $\frac{\mathbf{2 3}}{}$ In 1997, 32\% of sexually experienced male high school students reported they had not had intercourse in the last three months, compared with $23 \%$ of female students. $\underline{\mathbf{2 4}}$ The possibility that adolescent males are less likely to cause a pregnancy than teenage women are to experience one is consistent with the finding that sexually active adolescent women tend to have partners who are somewhat older than themselves, and therefore are less available as partners for men in their own age-group.

Finally, couples in which the man is relatively young - and therefore less willing or able than an older man to support a family-may be more determined than other couples to avoid pregnancy. Thus, at least among young couples, the man's young age may result in better contraceptive use than that found among couples in which the man is older. Our future research will address the issue of men's and women's age among sexually experienced couples, including their contraceptive use and pregnancy experience.

The ages of men and the women involved in pregnancies differ for those that end in abortion and those that result in a birth. Pregnancies involving adolescent men are more likely to end in abortion than are those involving teenage women, while marital pregnancies in which the woman is aged 35 or older are more likely to end in abortion than are those in which the man is in this age range. These findings may reflect differences in the life stages and expectations of women and men: Adolescent men may need to pursue further education or obtain better employment before they are ready to raise a family, while adolescent women may be able to rely on older male partners who have more economic resources. On the other hand, women aged 35 and older are likely to have completed their childbearing, while men of this age are likely to have younger partners and may still be building their families.

For too long, men's involvement in pregnancy has been ignored because of the absence of information about their reproductive behavior. New survey efforts, such as the expansion of the next NSFG to include a survey of men, will begin to redress the imbalance. The estimates we provide offer information that will be useful until more direct measures of men's involvement in pregnancies are available. Our findings illustrate that there are similarities in the basic levels and distributions of pregnancies among men and women, yet they also demonstrate that among couples involved in pregnancy, it is common for men to be older than women. The implications of these age differences, and of their influences in sexual relationships, merit further research.

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$\pm$ Cases not missing data on age of father were matched to those missing this data by the respondent's age, marital status, race and ethnicity, and education. Within these matched sets, the value of age of father for a nonmissing case was then randomly assigned to a missing case.
$\pm$ Miscarriages and stillbirths are often estimated to represent $20 \%$ of the number of births and $10 \%$ of the number of abortions (See: Leridon H, Human Fertility: The Basic Components, Chicago: University of Chicago Press, 1997, Table 4.20). Therefore, adding miscarriages would increase the number and rate of pregnancies, but it would not markedly alter their distribution by age or marital status.
§Fewer than $2 \%$ of all men responsible for pregnancies in 1994 were aged 45 or older. From NCHS estimates of birth rates among men, we estimated that excluding pregnancies involving men aged 45 and older from the numerator would decrease the rate from 89 to 88 births per 1,000 men.

