

Estimates of Pregnancies and Pregnancy Rates for the United States, 1976–85

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Abstract: After increasing by 9 per cent in the period 1976–80 in the United States, pregnancy rates declined by 4 per cent between 1980 and 1984 (from 111.9 to 107.3 pregnancies per 1,000 women aged 15–44 years). Between 1984 and 1985, the rate rose by less than 1 per cent to 108.2. More detailed data by age and race, available only through 1983, indicate that the decline in the 1980–83 period was not shared by all age groups. For example, pregnancy rates continued to increase for women in their thirties, and teenage pregnancy remained substantially the

same. In 1983, 61 per cent of all pregnancies ended in live birth, 26 per cent in induced abortion, and 13 per cent in fetal loss. Pregnancy rates in that year were two-thirds higher for women of races other than White than for White women, and pregnancies of other-than-White women were more likely to terminate as an induced abortion or fetal loss. However, White teenagers and teenagers of other races were about equally likely to have their pregnancy end in induced abortion or fetal loss. (*Am J Public Health* 1988; 78:504–511.)

Introduction

The annual number of live births and live birth rates by age of the mother and race are fairly current, with a lag of no more than one and one-half years. However, information on the number of pregnancies and pregnancy rates by age and race are difficult to obtain on a timely basis, because data for one component of pregnancy (induced abortion) must be obtained by canvassing thousands of individual abortion providers. There is a growing need for information on total pregnancies to complement our knowledge of the circumstances of live births, however.

A previously published report¹ indicated that pregnancy rates had risen by 9 per cent in the period 1976–80, but had then declined by 1 per cent between 1980 and 1981. Because of the lack of more recent abortion data, 1985 is the latest year for which it is presently possible to estimate the total number of pregnancies and pregnancy rates in the United States and 1983 the latest year for which numbers and rates of pregnancies can be estimated for age and race groups. The data for 1982 through 1985 are presented here.

Method

The estimates of pregnancies in this article are based on data compiled by the Division of Vital Statistics, National Center for Health Statistics (NCHS), and are prepared by summing the three outcomes of pregnancy: live birth, induced abortion, and fetal loss.

- Live births are tabulated from the birth registration system, and final data are published annually.^{2–5} It is estimated that more than 99 per cent of births occurring in the United States are registered.⁶

- Fetal loss estimates are based on unpublished tabulations from the National Survey of Family Growth. These estimates are based on interviews in 1982 (Cycle III of the survey)⁷ with a national sample of about 8,000 women of childbearing age and refer to spontaneous losses to recognized pregnancies of the previous five years.* The esti-

mates are undercounts of the actual number of fetal losses to the extent that some early fetal losses are not detected. Because most fetal loss occurs early in pregnancy, the fetal losses reported here are mainly miscarriages; relatively few are stillbirths. For women under age 15 and those 35 years of age and older, estimates of fetal loss are based on small numbers of sample cases and should, therefore, be interpreted with caution.

- Induced abortions are total counts reported to the Alan Guttmacher Institute, distributed by age according to estimates prepared by the Centers for Disease Control.^{8–13} Because it is often difficult to identify providers of few abortions, these estimates may be undercounts of the true number of abortions by up to 6 per cent.**

Numbers and rates of pregnancies by outcome, age of woman, and by race are shown here for 1976, 1980, 1982, and 1983, the latest year for which detailed abortion statistics are available. Figures by age for 1983 are shown separately for White women and women of all other races because there are substantial differences by race in pregnancy rates and in pregnancy outcome. It would be preferable to show pregnancies for White and Black women, but abortion data are collected only for the two categorical groups: "White" and "all other" races. In 1983, 80 per cent of births of "all other" races were to Black women.³ It is not known what the comparable proportion was for abortions in that year. Estimates of the number of women by age and race for each year used to compute the rates were provided by the US Bureau of the Census.^{14–19}

Results

Trends

After rising steadily from 1976 through 1980, pregnancy rates for American women declined slightly from 1980 to 1984. Except for one year, the rate had increased annually by 2 to 4 per cent during the latter half of the 1970s, from 102.7 estimated pregnancies per 1,000 women aged 15–44 years in 1976 to 111.9 in 1980. Yearly declines from 1980 to 1984 amounted to 1 to 2 per cent, with the rate falling to 107.3 in 1984. In 1985, the rate climbed slightly to 108.2 (Table 1).

The number of pregnancies rose steadily from an estimated 5,002,000 in 1976 to 6,020,000 in 1982, in large part because of the continued growth in the total number of women in the childbearing ages (Table 1). Between 1976 and 1980, the rise in the number of pregnancies resulted from

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** Personal communication, Dr. Stanley Henshaw, Deputy Director of Research, Alan Guttmacher Institute.

TABLE 1—Estimated Number of Pregnancies and Pregnancy Rates by Outcome of Pregnancy, and Number of Women, United States, 1976-85

Pregnancy Outcome, Age	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Number of pregnancies in thousands										
All pregnancies	5,002	5,331	5,433	5,714	5,913	5,958	6,020	5,975	6,018	6,144
Live births	3,168	3,327	3,333	3,494	3,612	3,629	3,681	3,639	3,669	3,761
Induced abortions	1,179	1,317	1,410	1,498	1,554	1,577	1,574	1,575	1,577	1,589
Fetal losses ^a	655	687	690	722	747	751	765	761	771	795
Rate per 1,000 women aged 15-44 years ^b										
All pregnancies	102.7	107.0	106.7	109.9	111.9	110.7	110.1	108.0	107.3	108.2
Live births	65.0	66.8	65.5	67.2	68.4	67.4	67.3	65.8	65.4	66.2
Induced abortions	24.2	26.4	27.7	28.8	29.4	29.3	28.8	28.5	28.1	28.0
Fetal losses ^a	13.4	13.8	13.5	13.9	14.1	14.0	14.0	13.8	13.8	14.0
Number of women in thousands										
15-44 years of age	48,721	49,814	50,921	52,016	52,833	53,842	54,652	55,340	56,061	56,764
15-19 years of age	10,582	10,581	10,555	10,498	10,413	10,002	9,720	9,456	9,231	9,106

^aSpontaneous fetal losses from recognized pregnancies of all gestational periods as reported by women in the 1982 National Survey of Family Growth conducted by the National Center for Health Statistics (NCHS). It is known that the rate of pregnancy loss depends on the degree to which losses at very early gestations are detected.
^bRates computed by relating the number of events to women of all ages to women aged 15-44 years.
 Due to rounding, figures may not add to totals.

increases in the pregnancy rate as well as in the number of women. The number of pregnancies rose 2 per cent between 1980 and 1982 because the population increase during those years was more than enough to compensate for the decline in the pregnancy rate. The 2 per cent increase in the number of pregnancies between 1982 and 1985 (to 6,144,000) reflects a continuation of the 1980-82 pattern: The 4 per cent increase in the female population aged 15-44 years more than offset the 2 per cent reduction in the pregnancy rate.

Birth and abortion rates peaked in 1980 (Table 1). The birth rate rose from 65.0 births per 1,000 women aged 15-44 in 1976 to 68.4 in 1980 and then fell to 66.2 in 1985. The rate for induced abortion increased from 24.2 to 29.4 between 1976 and 1980 and fell thereafter to 28.0 in 1985.

Pregnancy rates increased substantially between 1976 and 1980 for women aged 15-34 years. However, during the early 1980s, this rising trend continued only for women in their thirties (Figure 1, Table 2). Teenage pregnancy rates remained substantially the same from 1980 to 1983; approximately one in 10 teenagers became pregnant in each of these years. Rates for women in their twenties dropped by 3 to 4 per cent between 1980 and 1983.

Rates of live birth and fetal loss generally declined between 1980 and 1983 for women aged 15-29; rates for women in their thirties rose (Table 2). During this period, rates of induced abortion changed very little for all age groups. The decline in pregnancy rates between 1980 and

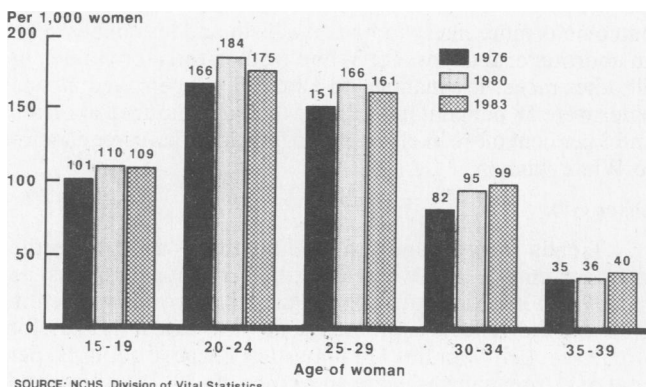


FIGURE 1—Pregnancy Rates by Age of Woman, United States, 1976, 1980, 1983

1983 is for the most part a reflection of the decline in birth rates for women in their twenties. Although there were changes in rates of live birth, induced abortion, and fetal loss during the period 1976-83, in all years birth rates were highest for women aged 20-29, abortion rates highest at ages 18-19, and fetal loss rates highest at ages 25-29.

Outcomes

Since 1976, when a consistent series of national pregnancy estimates first became available, there has been very little change in the distribution of pregnancy outcomes for all ages combined. In 1976, 63 per cent of all pregnancies ended in live birth, 24 per cent in induced abortion, and 13 per cent in fetal loss.¹ From 1976 to 1978, there was a small decline in the proportion of pregnancies ending as a live birth (from 63 to 61 per cent) with a corresponding increase in the proportion ending in induced abortion (from 24 to 26 per cent). The proportion of fetal losses was unchanged. These distributions have not changed since 1978 (Table 1).

For young women under 15 years old, one-half or more of all pregnancies have ended in abortion and slightly more than one-third in live birth since 1976 (56 per cent for induced abortion and 33 per cent for live birth in 1983) (Table 3 and Figure 2). For succeeding age groups up to ages 35-39, the use of abortion declined sharply, from 40 per cent for women aged 15-19 to 18 per cent for women aged 30-34 years. By contrast, 37 per cent of the pregnancies of women in their forties ended in abortion. About two-thirds of the pregnancies of women aged 25-34 years ended as live births in 1983.

The proportion of pregnancies ending in fetal loss (miscarriage or stillbirth) tends to rise with age of woman, to a maximum for pregnancies to women aged 35-39 years (20 per cent in 1983) (Table 3). The comparatively low proportions of fetal losses for women under 15 years of age and for those in their forties (11 and 17 per cent in 1983) may reflect the relatively greater use of abortion by these women.

Racial Differences

Pregnancy rates in 1983 for women of races other than White averaged 68 per cent higher than rates for White women (163.6 compared with 97.4). This racial differential has narrowed since 1976, when the rate for all other women (166.4) was 81 per cent higher than for White women (92.0).¹ However, racial differences for all age groups continue to be substantial (Table 4). The differential by race is greatest for

TABLE 2—Estimated Number of Pregnancies and Pregnancy Rates by Outcome of Pregnancy, Age of Woman, and Race, United States 1976, 1980, 1982, and 1983

Pregnancy Outcome and Year	Age of Woman										Race			
	Total ^a	Under 15 years ^b	15–19 years					20–24 years	25–29 years	30–34 years	35–39 years	40 years and over ^c	White	All Other
			Total	15–17 years	18–19 years									
Number in thousands														
All pregnancies														
1983	5,975	29	1,032	395	637	1,879	1,698	955	324	58	4,530	1,445		
1982	6,020	28	1,071	409	662	1,935	1,701	927	302	57	4,593	1,427		
1980	5,913	29	1,146	446	699	1,956	1,626	844	258	54	4,541	1,372		
1976	5,002	32	1,073	—	—	1,644	1,380	602	214	56	3,837	1,165		
Live births														
1983	3,639	10	489	173	317	1,160	1,148	625	180	27	2,904	735		
1982	3,681	10	514	181	333	1,206	1,152	605	168	26	2,942	738		
1980	3,612	10	552	198	354	1,226	1,108	550	141	24	2,899	714		
1976	3,168	12	559	215	343	1,092	972	392	116	26	2,568	600		
Induced abortions														
1983	1,575	16	411	166	245	548	328	172	78	21	1,084	491		
1982	1,574	15	419	168	250	552	326	168	73	21	1,095	479		
1980	1,554	15	445	183	261	549	304	153	67	21	1,100	454		
1976	1,179	16	363	153	210	392	221	110	57	21	785	394		
Fetal losses ^d														
1983	761	3	132	56	75	170	222	159	65	10	542	219		
1982	765	3	138	59	79	177	223	154	61	9	556	209		
1980	747	3	149	65	84	180	214	140	51	9	542	205		
1976	655	4	151	—	—	160	188	100	42	9	485	170		
Rate per 1,000 women														
All pregnancies														
1983	108.0	3.3	109.2	73.2	157.0	175.4	160.8	98.9	39.6	8.6	97.4	163.6		
1982	110.1	3.1	110.1	73.0	160.6	178.6	163.9	98.4	38.0	8.9	99.8	165.1		
1980	111.9	3.2	110.0	73.2	162.2	183.6	165.7	95.0	36.4	9.1	101.4	170.3		
1976	102.7	3.2	101.4	—	—	166.1	150.7	82.3	35.3	9.9	92.0	166.4		
Live births														
1983	65.8	1.1	51.7	32.0	78.1	108.3	108.7	64.6	22.1	4.0	62.4	83.2		
1982	67.3	1.1	52.9	32.4	80.7	111.3	111.0	64.2	21.1	4.1	63.9	85.5		
1980	68.4	1.1	53.0	32.5	82.1	115.1	112.9	61.9	19.8	4.1	64.7	88.6		
1976	65.0	1.2	52.8	34.1	80.5	110.3	106.2	53.6	19.0	4.5	61.5	85.8		
Induced abortions														
1983	28.5	1.9	43.5	30.8	60.4	51.2	31.1	17.8	9.6	3.1	23.3	55.5		
1982	28.8	1.7	43.1	30.1	60.7	50.9	31.5	17.8	9.2	3.3	23.8	55.4		
1980	29.4	1.7	42.7	30.1	60.6	51.6	31.0	17.2	9.4	3.5	24.6	56.3		
1976	24.2	1.6	34.3	24.2	49.3	39.6	24.1	15.0	9.3	3.7	18.8	56.3		
Fetal losses ^d														
1983	13.8	0.4	13.9	10.4	18.5	15.9	21.0	16.5	8.0	1.4	11.6	24.8		
1982	14.0	0.4	14.2	10.6	19.2	16.3	21.5	16.4	7.7	1.5	12.1	24.2		
1980	14.1	0.4	14.3	10.6	19.5	16.9	21.8	15.8	7.2	1.5	12.1	25.4		
1976	13.4	0.4	14.3	—	—	16.2	20.5	13.7	6.9	1.6	11.6	24.3		

^aRates computed by relating the number of events to women of all ages to women aged 15–44 years.
^bRates computed by relating the number of events to women under 15 years to women aged 10–14 years.
^cRates computed by relating the number of events to women aged 40 years and over to women aged 40–44 years.
^dSpontaneous fetal losses from recognized pregnancies of all gestational periods as reported by women in the 1982 National Survey of Family Growth conducted by the National Center for Health Statistics (NCHS). It is known that the rate of pregnancy loss depends on the degree to which losses at very early gestations are detected.

women under 15 and over 35 years of age. Racial differences in birth rates are also evident but are substantially smaller. At ages 25–34 there is very little difference at all. Rates of induced abortion for women of races other than White are considerably greater than those for White women, with the differential tending to increase with advancing age up through 30–34 years, after which the differential declines.

When the pregnancies are distributed according to outcome by race and age, distinct racial differences appear in some age groups (Table 3). For pregnancies to teenagers, the distributions are nearly the same for White and all other women. About half of the teenage pregnancies resulted in live births, about four in 10 pregnancies ended in induced abortion, and about one in 10 pregnancies ended in fetal loss. In contrast, among pregnancies to women aged 20 and older, the

outcome is more likely to be a live birth and less likely to be an abortion or fetal loss for White women than for women of all other races. Pregnancies to all other women aged 20 and older were 58 per cent more likely to end in induced abortion and 8 per cent more likely to end in fetal loss than pregnancies to White women.

Discussion

Trends in pregnancy rates differed by age: while the sharpest change for women in their twenties reflects an increase in abortion rates, the biggest change for women in their thirties reflects an increase in birth rates. Trends for women in their twenties are important because about 60 per cent of all pregnancies occur to women 20–29. Live birth and fetal loss rates for women in their twenties showed very little

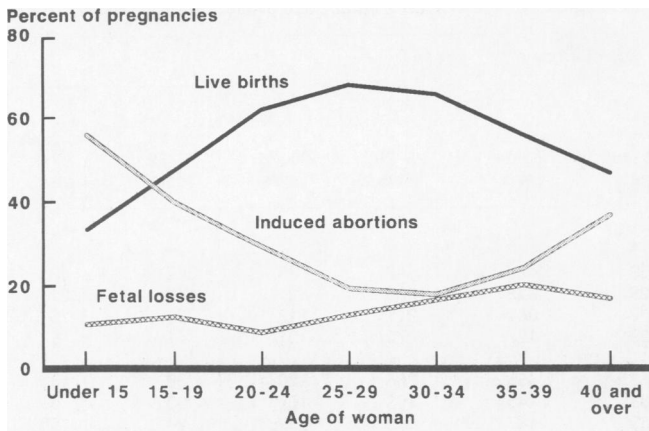


FIGURE 2—Per Cent of Pregnancies Ending as a Live Birth, Induced Abortion, or Fetal Loss, by Age of Woman, United States, 1983

change from 1976 to 1983, but the abortion rates in these age groups increased 29 per cent.

Pregnancy rates for women in their thirties are also of interest because they may indicate delayed childbearing, and because the risks of infertility, pregnancy loss, and other adverse outcomes increase with age, especially after age 30.²⁰ The rate of deliveries by cesarean section also rises with advancing age.²¹ The birth rates for women in their thirties rose 16-21 per cent from 1976 to 1983. These increases were not due to increases in unplanned births, because the proportions of births to women in their thirties that were unwanted or mistimed declined between 1973 and 1982.²² Further, substantial proportions of mothers in their thirties are college graduates (36 per cent in 1985),⁵ an additional indication that their childbearing was intentionally postponed for educational and career reasons.

The trends among teenagers are also of great interest because teenage parents and their offspring are at increased risk. A recent study of teenage pregnancy concluded that "society's economic burden in sustaining these families is substantial."²³ The 10 per cent decline in the number of teenage pregnancies between 1980 and 1983 reflects a 9 per cent decline in the number of teenagers during that period.

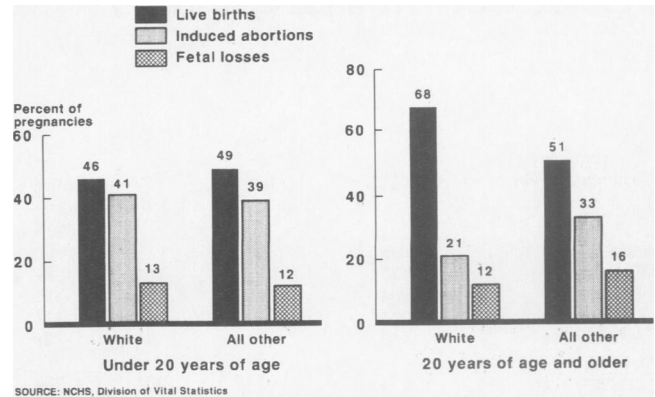


FIGURE 3—Per Cent of Pregnancies Ending as a Live Birth, Induced Abortion, or Fetal Loss, by Race and Age of Woman, United States, 1983

The teenage population has declined steadily since 1976 (Table 1), and will continue to do so until the early 1990s as the smaller birth cohorts of the 1970s come of age. This trend may lead to a public perception that the teenage pregnancy problem is lessening, although the rates have not changed significantly. Since 1980, for example, the teenage pregnancy and birth rates declined by less than 3 per cent, and the abortion rate rose 2 per cent.

These shifting trends in teenage pregnancies and pregnancy rates can be partially explained by trends in teenage sexual activity and in the use of birth control by teenagers. The proportions of teenagers who had had premarital intercourse rose by 11 per cent between 1976 and 1979,²⁴ leaving a larger proportion of teenagers exposed to the risk of pregnancy. Further, the percentage who used a contraceptive method at first premarital intercourse remained about the same between the early 1970s and the late 1970s,²⁵ and two separate national surveys show that use of the oral contraceptive pill, a highly effective and widely used contraceptive method, declined among teenagers in the late 1970s.^{25,26} Thus, as teenage sexual activity was increasing, use of the pill was declining among teenagers in the late 1970s.^{25,26} At the same time (1976-80), there was a 24 per cent rise in the abortion rate for women ages 15-19 (Table 2).

During the entire period between 1976 and 1983, preg-

TABLE 3—Estimated Per Cent Distribution of Pregnancies by Outcome of Pregnancy According to Age of Women and Race, United States, 1983.

Pregnancy Outcome and Race	Age of Women							
	Total	Under 15 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40 years and over
All races								
All pregnancies	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Live birth	60.9	33.3	47.4	61.8	67.6	65.4	55.7	46.5
Induced abortion	26.4	55.8	39.9	29.2	19.3	18.0	24.1	36.6
Fetal loss	12.7	10.9	12.7	9.1	13.1	16.7	20.2	16.9
White								
All pregnancies	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Live birth	64.1	31.2	46.3	64.4	71.2	70.8	60.8	49.6
Induced abortion	23.9	57.7	40.6	26.8	16.1	15.4	22.3	37.4
Fetal loss	12.0	11.0	13.2	8.9	12.6	13.8	16.9	12.9
All other								
All pregnancies	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Live birth	50.8	34.9	50.1	53.6	53.9	47.2	40.6	38.4
Induced abortion	34.0	54.3	38.1	36.8	31.4	26.6	29.6	34.4
Fetal loss	15.2	10.7	11.7	9.6	14.7	26.2	29.8	27.3

Based on unrounded frequencies.

TABLE 4—Estimated Number of Pregnancies and Pregnancy Rates by Outcome of Pregnancy, Age of Woman and Race, United States, 1983

Pregnancy Outcome and Race	Age of Woman									
	Total ^a	Under 15 years ^b	15–19 years							40 years and over ^c
			Total	15–17 years	18–19 years	20–24 years	25–29 years	30–34 years	35–39 years	
Number in thousands										
White										
All pregnancies	4,530	13	731	262	469	1,426	1,342	735	242	42
Live births	2,904	4	338	110	229	918	956	521	147	21
Induced abortions	1,084	7	296	114	182	381	217	113	54	16
Fetal losses ^d	542	1	96	38	59	127	170	101	41	5
All other										
All pregnancies	1,445	16	301	134	168	453	355	220	82	16
Live births	735	6	151	63	88	243	192	104	33	6
Induced abortions	491	9	115	52	63	167	112	59	24	5
Fetal losses ^d	219	2	35	19	17	44	52	58	25	4
Rate per 1,000 women										
White										
All pregnancies	97.4	1.8	94.1	59.2	140.2	159.5	151.7	90.3	34.5	7.3
Live births	62.4	0.6	43.6	24.8	68.3	102.6	108.0	64.0	21.0	3.6
Induced abortion	23.3	1.0	38.2	25.9	54.4	42.7	24.5	13.9	7.7	2.7
Fetal losses ^d	11.6	0.2	12.4	8.5	17.5	14.2	19.2	12.4	5.8	0.9
All other										
All pregnancies	163.6	10.1	178.0	136.3	235.7	255.3	208.0	144.9	70.5	16.4
Live births	83.2	3.5	89.3	64.2	123.9	136.8	112.1	68.4	28.6	6.3
Induced abortion	55.5	5.5	67.9	53.0	88.5	93.9	65.3	38.5	20.8	5.6
Fetal losses ^d	24.8	1.1	20.9	19.1	23.3	24.6	30.5	38.0	21.0	4.5

^aRates computed by relating the number of events to women of all ages to women aged 15–44 years.

^bRates computed by relating the number of events to women under 15 years to women aged 10–14 years.

^cRates computed by relating the number of events to women aged 40 years and over to women aged 40–44 years.

^dSpontaneous fetal losses from recognized pregnancies of all gestational periods as reported by women in the 1982 National Survey of Family Growth conducted by the National Center for Health Statistics (NCHS). It is known that the rate of pregnancy loss depends on the degree to which losses at very early gestations are detected. Due to rounding, figures may not add to totals.

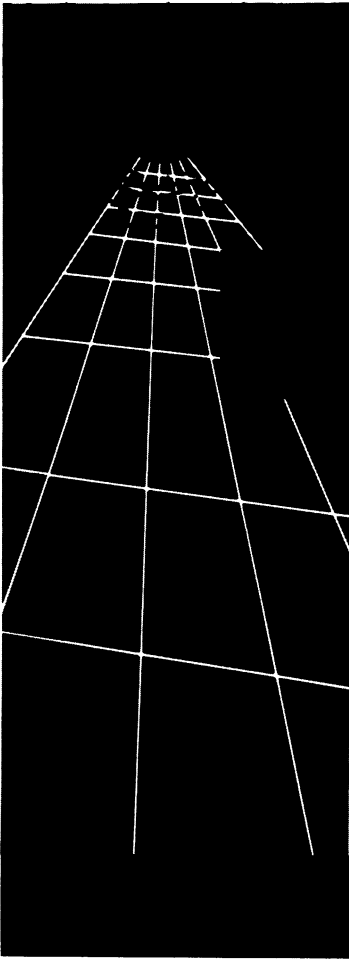
nancy rates for White women were substantially lower than those for all other women (Table 2). What is responsible for this substantial racial difference in pregnancy rates? Three possible explanations are noted here:

- Black women tend to begin having intercourse earlier than White women.^{7,24,26}
- Black women are much less likely to use birth control at first intercourse than White women and are also more likely to postpone using contraceptives a year or more after first intercourse.²⁵
- Both married and unmarried Black women are more likely than their White counterparts to be currently exposed to the risk of pregnancy and not using a birth control method.²⁷

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