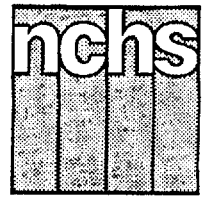


Monthly Vital Statistics Report



Final Data From the National Center for Health Statistics

Advance Report of Final Natality Statistics, 1988

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Births and birth rates

There were 3,909,510 babies born in the United States in 1988, a 3-percent increase over the 1987 total (3,809,394) (table 1). The number of births is expected to increase by about 3 percent again in 1989, according to provisional statistics.

The birth rate for 1988 was 15.9 live births per 1,000 population, 2 percent higher than the rate for 1987 (15.7). Since 1979, the birth rate has varied little, ranging from 15.5 to 15.9. Provisional data for 1989 indicate a 2-percent rise over the 1988 rate.

The fertility rate, which relates the number of births to women of child-bearing age, rose 2 percent in 1988. The 1988 rate of 67.2 live births per 1,000 women aged 15-44 years was the highest it has been since 1982 (67.3). (See table 1 and figure 1.) A 2-percent increase in the fertility rate is indicated for 1989 according to provisional data.

Age-specific birth rates for women aged 15-44 years rose in 1988 by 2-9 percent. Increases of 2-3 percent were noted for women in age groups 18-34 years. Larger increases of 6-9 percent were measured for young teenagers 15-17 and for women 35-44 years. (See tables 2-4 for births and birth rates by age of mother and figure 2 for birth rates by age of mother.)

The birth rate for young teenagers 15-17 years increased 6 percent. The 1988 rate of 33.8 was higher than in any year since 1977 (33.9). The rate for older teens, 18-19 years, increased 2 percent between 1987 and 1988, to

81.7. The rate for this age group has fluctuated within a narrow range of 78 to 82 since 1976.

Birth rates for women in their twenties increased slightly in 1988 (by 2 percent) to 111.5 for women aged 20-24 and to 113.4 for women aged 25-29 years. These rates also have varied little since the early to middle 1970's. Rates for women aged 20-24 years have ranged from 107.3 to 115.1 since 1975, while rates for women aged 25-29 have ranged from 106.2 to 113.4 since 1973. The rate of 113.4 in 1988 for women aged 25-29 years was the highest for this group since 1972 (117.7).

Women in age groups 30-44 years are the only ones for whom there has been a steady increase in birth rates over a sustained period of time. The birth rate for women aged 30-34 years increased 3 percent to 73.7 per 1,000 in 1988, higher than it has been for 20 years (74.2 in 1968). This rate has risen 41 percent since 1975 (52.3).

The rate for women aged 35-39 years rose 6 percent to 27.9 in 1988, the highest it has been since 1971 (28.7). This rate has increased 43 percent since 1975. The largest annual increase in birth rates was for women aged 40-44



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Centers for Disease Control
National Center for Health Statistics
Manning Feinleib, M.D., Dr. P.H., Director

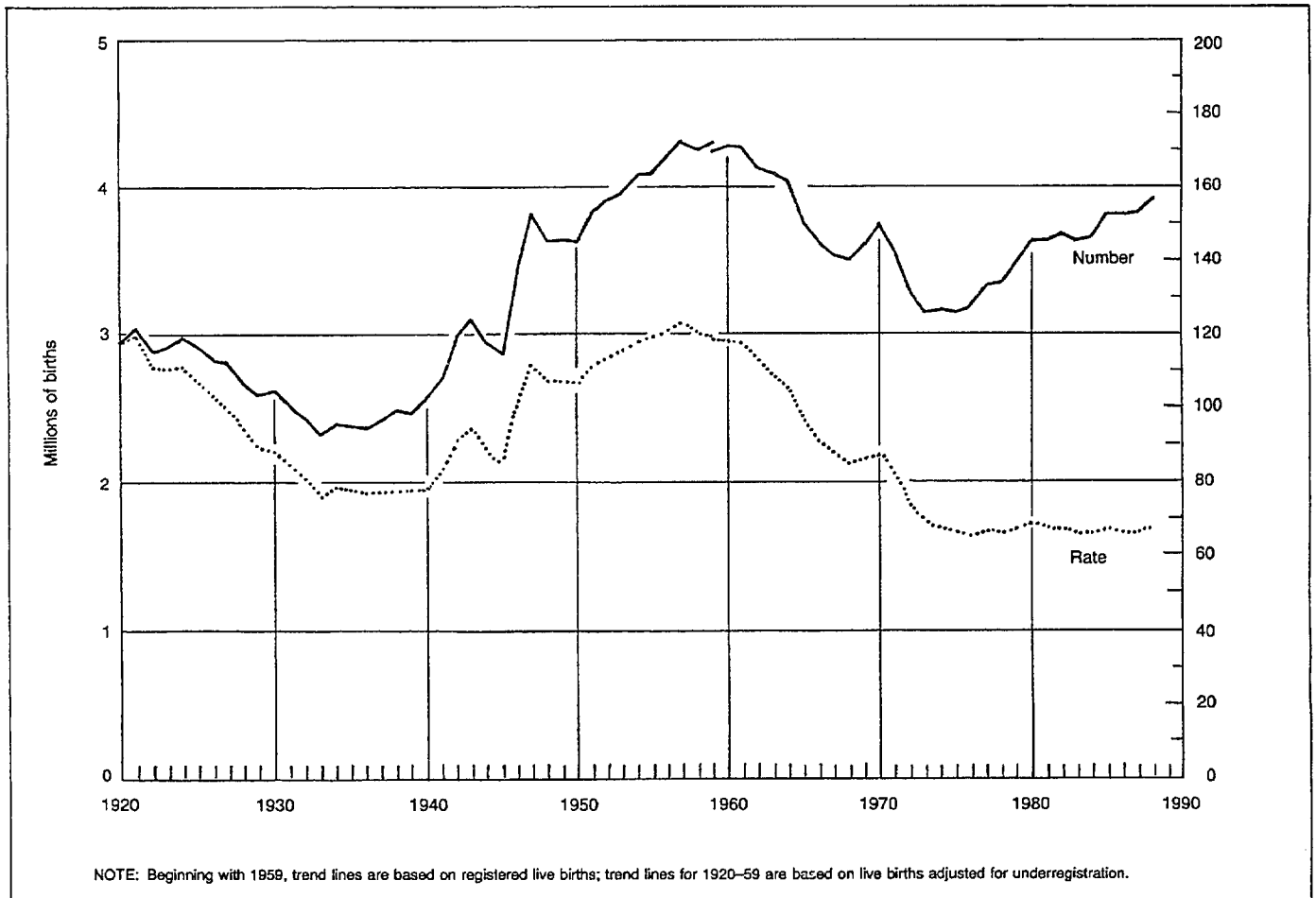


Figure 1. Live births and fertility rates: United States, 1920-88

years. Although the rate for this group is very low, it has increased substantially in the past few years. The 1988 rate of 4.8 births per 1,000 was 9 percent higher than in 1987 (4.4) and 20 percent higher than in 1985 (4.0).

The increases for women in their thirties and early forties reflect the continuing trend of women postponing childbearing to increasingly older ages (1). Despite the substantial increases in rates for these women, their rates continue to be well below those for women in their twenties (tables 3 and 4). As a result, the general fertility rate has changed very little since the mid-1970's (table 1).

It is not possible to account for the recent rise in rates for young teenagers from birth certificate data, but data from the 1988 National Survey of Family Growth show that the proportion of young teenagers who are sexually experienced has increased considerably in recent years (2).

Data on childlessness and educational attainment can be used to interpret the trends for relatively older women. As reported elsewhere (1), levels of childlessness among American women have risen sharply in recent years. Of women reaching age 30 by the end of 1988, 31 percent had not had any children compared with just 19 percent of women aged 30 in 1975. Surveys show, however, that about half of the childless women in their early thirties expect to have at least one child (3).

Birth data according to mother's educational attainment have shown clearly that women delaying childbearing to relatively older ages are disproportionately highly educated. In 1988, 47 percent of women aged 30-34 years having their first child were college graduates compared with 7 percent of women aged 20-24 and 33 percent of women aged 25-29 years. Furthermore, the first-birth rate for college graduates aged 30-34 years rose

considerably from 1975 to 1985 (from 20 to 36 per 1,000), while the rate for highly educated women in their early twenties dropped from 40 to 29 (1,4). These figures suggest trends observed since the mid-1970's which indicate that younger, highly educated women have been postponing childbearing while their older counterparts have been making up for the childbearing they had previously postponed.

The number of births in a given age group reflects both the level of the age-specific birth rate and the number of women in the age group. The total number of women in the childbearing ages (15-44 years) increased 22 percent between 1975 and 1988. All of this increase, however, is attributable to the 45-percent rise in the number of women aged 25-44 years. Women aged 25-44 in 1988 were born during the baby boom after World War II. The number of women aged 15-24 years declined 8 percent during this period;

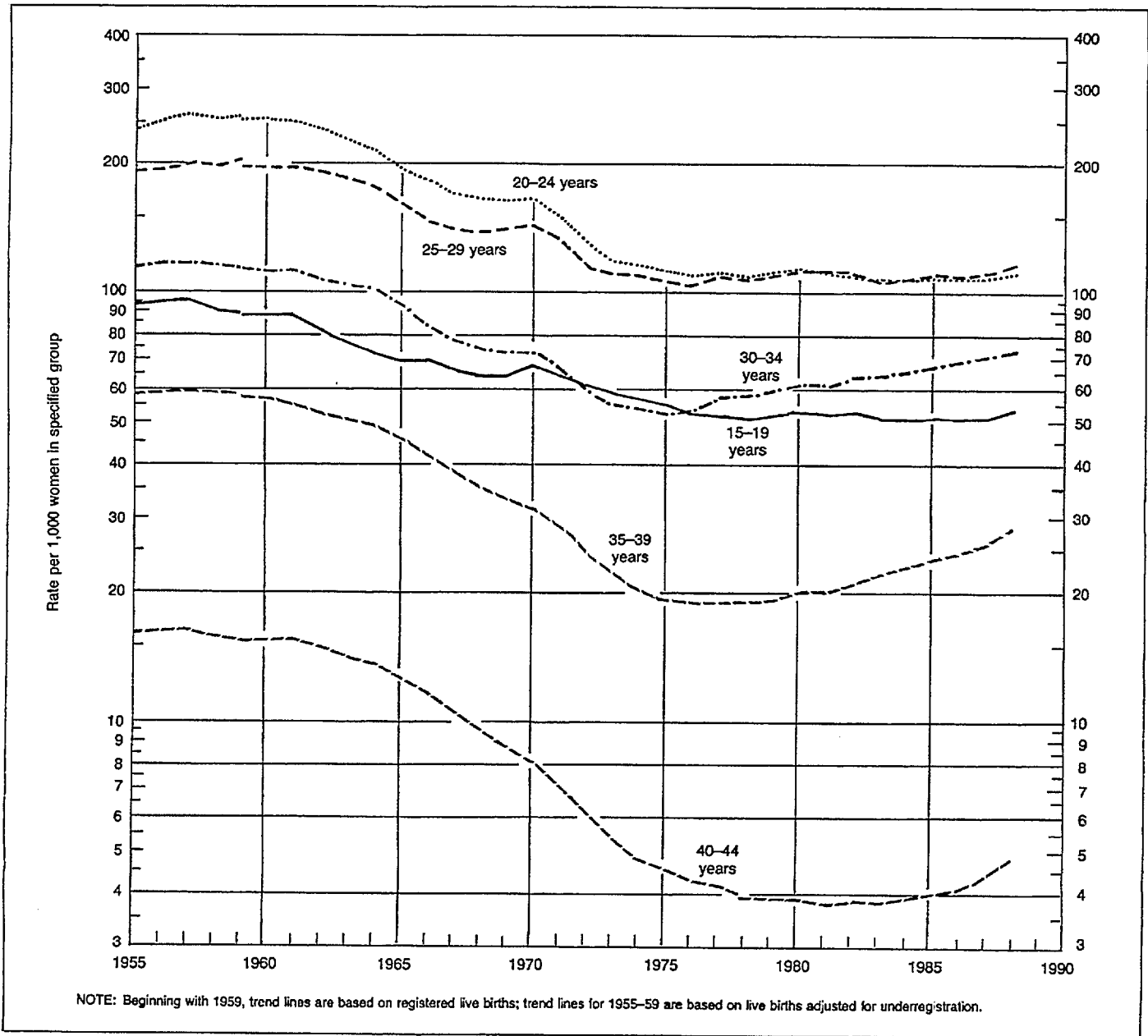


Figure 2. Birth rates by age of mother: United States 1955-88

women aged 15-24 in 1988 were born after the baby boom had ended.

As a consequence of the shift in the levels of birth rates by age and the changes in the age distribution of women of childbearing age, the proportion of all births occurring to teenagers has fallen while the proportion occurring to women aged 25 years and older has risen. Teenage mothers accounted for 13 percent of all births in 1988 compared with 19 percent in 1975. Women aged 25 years and older accounted for 60 percent of all births in 1988, up sharply from the 46-percent level observed in 1975. As the relatively small

number of women now aged 15-24 years reaches ages 20-29 (the peak ages of childbearing), and women born during the baby boom reach the post-childbearing ages, the total number of births could stabilize or even decline, unless birth rates by age rise substantially.

Birth rates increased for all birth orders but one in 1988. The increases were larger as birth order advanced from the first through the seventh child (tables 3 and 5 and figure 3). The increases ranged from 1-2 percent for first- and second-birth orders to 7-13 percent for fifth- to seventh-birth orders.

Although the first-birth rate rose just 1 percent, the number of first births in 1988 increased 2 percent, to 1,595,587, the highest number ever recorded in the United States. (See table 5 for rates for 1980-88.) From 1983 to 1987 there had been relatively little change in the rates by live-birth order (figure 3).

First-birth rates increased 5 percent for young teenagers 15-17 years, 1 percent for ages 18-24, 4 percent for ages 25-34, and 10 percent for ages 35-39 years. The first-birth rate also rose for women aged 40-44 years. This pattern of increase was observed in second-order birth rates by age as well,

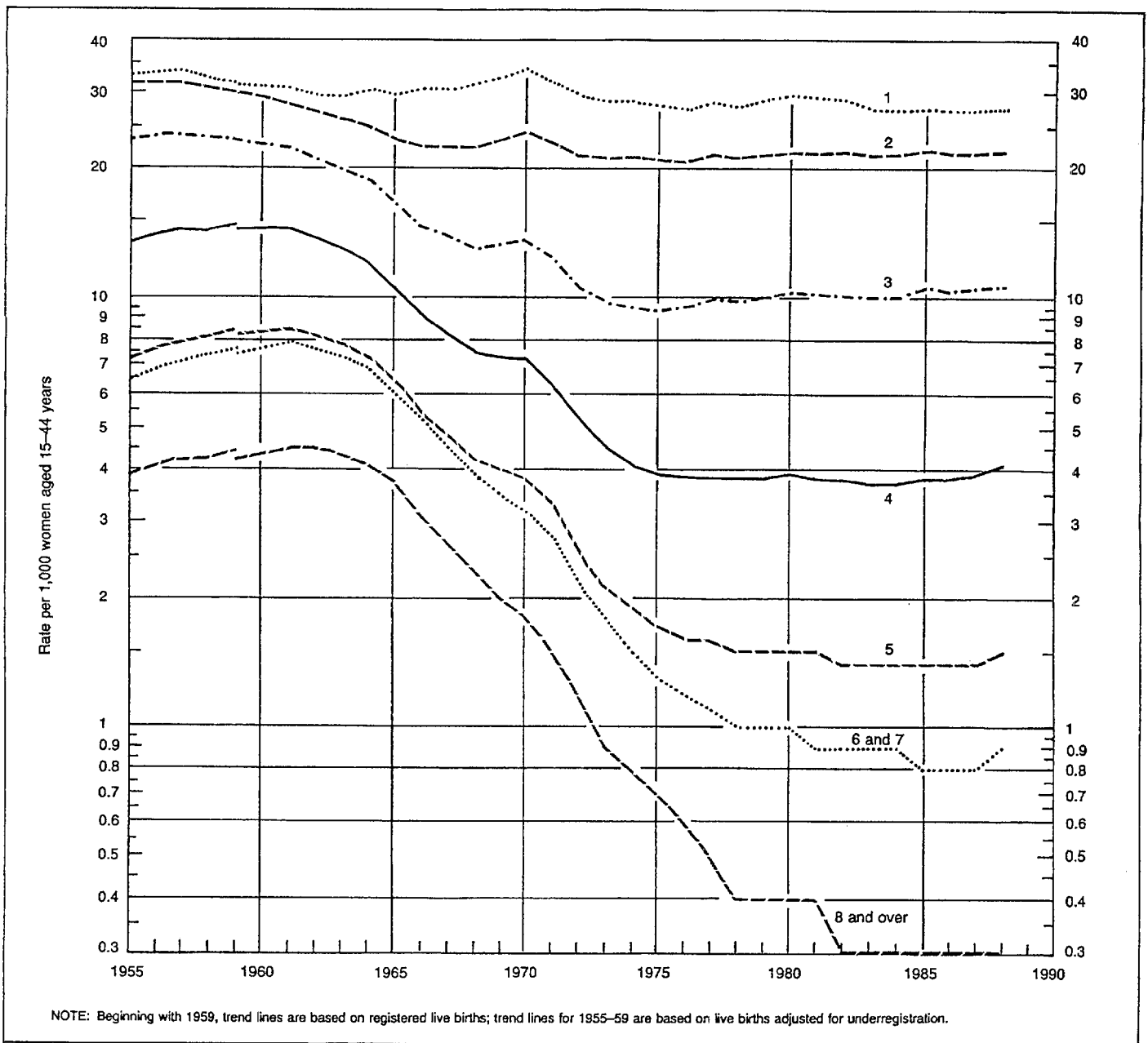


Figure 3. Birth rates by live-birth order: United States, 1955-88

with relatively small increases (1-3 percent) for women 18-34 years and considerably larger increases of 8 percent or more for women aged 35-44 years.

Birth rates by live-birth order for women in age groups 18-29 years were at about the same levels in 1988 as they were in 1980. Rates for first- through third-order births for women aged 30-44 years, however, were all substantially higher in 1988 than in 1980. Rates for fifth and higher order births were lower in 1988 than in 1980. Many women who had evidently been delaying childbearing to relatively older ages

have started their families in recent years (1). The much faster rise since 1980 in first-birth rates for women aged 35-39 and 40-44 years than for women aged 30-34 indicates that the tendency to make up for previously postponed births is accelerating among older women. Further, many of these women in their late thirties and early forties are going on to have a second or third child; these rates were 47-120 percent higher in 1988 than in 1980. The making up of previously postponed childbearing has been underway since the mid-1970's.

Although about half of childless women in their early thirties expect to

have at least one child (3), it is likely that some of these women will remain childless. The increasing proportion of women who are unmarried (whether never married, widowed, or divorced) is likely to keep the incidence of childlessness elevated for many of them. Additionally, fertility impairments are more prevalent among older couples, according to data from the 1982 National Survey of Family Growth (5). It may be more difficult to treat some fertility-impairing conditions among older women (6).

The fertility rate for black women in 1988 was 86.6 births per 1,000

women aged 15–44 years, 37 percent higher than the rate for white women, 63.0. Except for the rates for women aged 30–34 years, birth rates for black women were higher than for white women in every age group (table 4). Birth rates for black women under 25 years were substantially higher than the rates for white women of the same age. Rates for black women aged 25–29 and 35–39 years, however, were only 1–2 percent higher than the rates for comparably aged white women. The rate for white women aged 30–34 (72.9) was 10 percent higher than the rate for black women (66.0).

For women aged 18–34 years, rates rose at a somewhat faster pace between 1987 and 1988 for black than for white women. In contrast, in age groups 15–17 and 35–44 years, rates for white women rose more than for black women (table 4). Rates for first through third order births increased between 1987 and 1988 more for black than for white women; the reverse was true for fifth- and sixth and seventh-order birth rates. Increases in fourth-order rates were virtually the same for white and black women (table 5).

The total fertility rate is a measure that indicates how many births 1,000 women would have if they experienced throughout their childbearing years the set of age-specific birth rates observed in a given calendar year. It is a hypothetical measure that shows the implications of current fertility levels for completed family size. Because the total fertility rate is computed from age-specific birth rates and assumes the same number of women in each age group, it is an age-adjusted rate.

The total fertility rate increased 3 percent in 1988 to 1,932.0 (table 4). The 1988 rate was the highest it has been since 1972 (2,010.0). This increase reflects the 2–9-percent increases in birth rates in 5-year age groups for women 15–44 years. The rate of 1,932.0 is 8 percent below the level considered necessary for a given generation to exactly replace itself in the population over the long run (2,110). The total fertility rate has been below replacement level since 1971.

The total fertility rate for white women increased to 1,814.0 in 1988, 3 percent higher than in 1987 (1,766.5)

and higher than in any year since 1972 (1,906.5). The rate for black women increased 5 percent from 2,294.0 in 1987 to 2,402.0 in 1988; the 1988 rate was higher than it has been since 1973 (2,411.0).

Geographic division and State

The number of births increased in all nine geographic divisions in 1988. Increases were 1 percent or less in four divisions (East North Central, West North Central, West South Central, and Mountain), 2–3 percent in the New England, Middle Atlantic, and East South Central divisions, and 4–5 percent in the South Atlantic and Pacific divisions. (See table 6 for 1988 data.) There were increases in 35 States and the District of Columbia and declines in 15 States.

The birth rate per 1,000 total population rose by 1 percent in the East North Central, East South Central, and West South Central divisions; by 2 percent in the New England and South Atlantic divisions; and by 3 percent in the Middle Atlantic and Pacific divisions. There was no change in the birth rate for the West North Central and Mountain divisions. Rates rose by up to 4 percent in 32 States and the District of Columbia. Declines of 1–4 percent were reported for 15 States. Rates for three States did not change.

The fertility rate per 1,000 women aged 15–44 years increased in all geographic divisions. Increases were 1 percent in the East North Central, West North Central, West South Central, and Mountain divisions; 2 percent in the East South Central division; 3 percent in the New England, Middle Atlantic, and South Atlantic divisions; and 4 percent in the Pacific division. Rates rose by up to 6 percent in 36 States and the District of Columbia. Declines of up to 5 percent were observed in 13 States. There was no change in the rate for Nebraska.

Birth and fertility rates vary considerably from State to State. In 1988 the birth rate ranged from a low of 11.6 for West Virginia to a high of 21.4 for Alaska. West Virginia also had the lowest fertility rate, 50.3; the highest rate reported was for Utah, 92.0.

Sex ratio

In 1988, the sex ratio was 1,050 males per 1,000 females, the same as in 1987 (table 7). This ratio has remained very stable for the last two decades, ranging between 1,050 and 1,055 since 1970.

The sex ratio varies considerably by race, with the ratio for white births consistently higher than that for black births. In 1988, the ratio for white births was 1,053, almost the same as in 1987 (1,054); for black births the ratio was 1,033, somewhat above the 1987 level of 1,028. The ratios for white and black births have both remained relatively stable. Since 1970, the ratio for white births has ranged between 1,053 and 1,059 and for black births, between 1,024 and 1,034.

Month of birth

In 10 of the 12 months of 1988, monthly birth rates were above the rates observed in 1987, and in the remaining 2 months, the rates were the same; in every month, the fertility rates for 1988 were higher than those for 1987. The peak months for the number of births and for birth and fertility rates were July, August, and September, a pattern observed for many years (table 8). Underlying trends in the monthly birth and fertility rates can be discerned more easily by removing the seasonal component. On average, the seasonally adjusted birth and fertility rates were higher for the second half of 1988 than for the first half of the year. Provisional data for 1989 indicate a similar pattern; seasonally adjusted rates for July–December are higher than those for January–June.

Day of week

Births are concentrated on Mondays through Fridays with concomitant deficits on weekends, particularly Sundays, and on holidays (table 9).

The index of occurrence of births can be used to examine this pattern more closely. The index is defined as the ratio of the average number of births occurring on a given day of the week to the average daily number of births for the year, multiplied by 100. Thus, an index of 100.0 represents the

average number of births per day, 10,682 in 1988. The index was 109.3 for Tuesday, the peak day of occurrence, and 81.9 for Sunday, the day with the smallest number of births. The differential between the Tuesday and Sunday birth indices remained unchanged from the 1987 level of 34 percent. This is the first time since 1980, the earliest year for which these indices are available, that this differential has not increased. The index for Thursday increased in 1988 making it almost the same as the indices for Wednesday and Friday.

This pattern of a weekend deficit has been attributed in part to the proportions of deliveries by cesarean section (24.7 percent in 1988) (7). Many of these deliveries are scheduled in advance and are unlikely to be scheduled on weekends or holidays.

Place of delivery and attendant at birth

In 1988, the proportion of infants who were born in hospitals was the same as in 1987, 99.1 percent (tables 10–12). For white births, the proportion remained unchanged from 1987, at 99.0 percent. However, among black births, this proportion declined slightly from 99.4 percent to 99.3 percent. The vast majority of hospital births were attended by physicians, 96.7 percent, but this proportion again has declined, following the trend of the past several years.

Although midwives attended only 3.4 percent of births in 1988, the number of midwife-attended births has more than quadrupled, rising from 29,413 in 1975 to 132,670 in 1988. Most of this increase can be attributed to the increase in the number of midwife-attended births in hospitals. The number of births attended by midwives in the hospital was five times as high in 1988 (115,886) as in 1975 (19,686), while the number in nonhospital settings rose 73 percent, from 9,727 to 16,784 over the same period.

Black babies were more likely than white babies to have been attended by midwives when the birth occurred in the hospital, 3.6 percent compared with 2.7 percent in 1988. Conversely, white babies were more likely than black babies to have been attended by midwives

in nonhospital settings, 52 percent compared with 11 percent.

Age of father

The birth rate for men rose 1.6 percent between 1987 and 1988, from 55.0 to 55.9 live births per 1,000 men 15–54 years of age, the highest rate since 1982. The rate for white men rose 1.0 percent from the 1987 level of 50.9 to 51.4, and for black men 3.1 percent from 79.5 to 82.0. Numbers of births classified by age of mother and father are shown in table 13, and trends in birth rates by age of father and race of child are shown in table 14.

Between 1987 and 1988, rates increased in every age group for both white and black men (with no difference in rates for men 55 years and over), although there was no consistent pattern in the magnitude of these increases. For white men, increases were largest at ages 15–19 (7 percent) and 40–54 years (4–5 percent). The increases for black men were largest at ages 15–24 (6–8 percent) and 45–54 years (4–5 percent).

Weight at birth

In 1988, although the overall rate of low birth weight remained unchanged from the 1987 level (6.9 percent), the already substantial racial disparity increased further. Low birth weight is defined as birth weight of less than 2,500 grams (5 pounds 8 ounces). Among black births, the incidence of low birth weight increased from 12.7 percent in 1987 to 13.0 percent, the highest level since 1976; the rate for white infants fell from 5.7 percent in 1987 to 5.6 percent in 1988. (Data for 1988 are shown in table 15.)

A major reason for the lack of improvement in the percent of low-birth-weight babies during the 1980's was the steady rise in the proportion of preterm births during this period (8). Between 1981 and 1988, this proportion rose from 9.4 percent to 10.2 percent. Almost 40 percent of all preterm births in 1988 were of low birth weight.

There was no particular pattern in the changes in low birth weight by age

of mother between 1987 and 1988 for white babies. The proportion of low-birth-weight babies declined for white mothers aged 17–19 years and 25–29 years by 1–4 percent; increased for mothers under 16 years, 35–39 years, and 45–49 years; and remained unchanged for other ages. Among black babies, there were increases in low-birth-weight levels of 4–22 percent for mothers aged 25 years and over. The only reductions were for black babies born to mothers under 15 years or those 18 years old; other teenage mothers had increased rates ranging from 1–2 percent. There was no change for the 20–24-year age group.

The incidence of low birth weight is associated with mother's age. Babies born to teenagers and to mothers 40 years and over are at the greatest risk of being low birth weight (8.2–13.6 percent). Mothers 25–29 and 30–34 years are least likely to have a low-birth-weight baby (6.1–6.3 percent).

The overall median weight at birth was 3,370 grams (equivalent to 7 pounds 7 ounces). The median birth weight for white infants was 3,420 grams (7 pounds 9 ounces) and for black babies, 3,180 grams (7 pounds); these medians have remained unchanged since 1984.

The numbers and proportions of low-birth-weight babies for each State are shown in table 16. Between 1987 and 1988, levels of low birth weight among white babies increased in 16 States and the District of Columbia and declined in 24 States; no changes were observed in 10 States. Among the 37 States and the District of Columbia with at least 1,000 black births in 1988, the proportions of low-birth-weight black infants increased in 24 States and the District of Columbia, fell in 12 States, and did not change in 1 State.

Multiple births

The number of infants born in multiple deliveries increased again in 1988, reaching 87,700, a 5-percent increase over the number in 1987 (83,917) compared with a 3-percent increase in singleton births. (Data for 1988 are shown in table 17.) Multiple births include twins, triplets, quadruplets, and higher order plural births. Each year the vast

majority of multiple births are twin deliveries, 85,315 in 1988, or 97.3 percent of all multiple births.

The multiple-birth ratio in 1988 was 22.4 live births in multiple deliveries per 1,000 total live births, 2 percent higher than in 1987 (22.0). Between the late 1950's and the early 1970's, the overall multiple-birth ratio decreased, falling from 20.6 (1958) to 18.4 (1973). Since 1973, the ratio has increased fairly steadily. The ratio has been consistently higher for black babies than for white babies. In 1988, the ratios were 22.0 and 25.8 for white and black infants, respectively, both 2 percent higher than in 1987.

Multiple-birth ratios also vary according to age of mother. The highest ratio was for mothers ages 35-39 years, 30.5 in 1988. Ratios for other age groups ranged from 13.3 for mothers 45-49 years to 27.5 for mothers 30-34 years. These differences by age group were observed for both white and black babies, and the ratios for black births were higher than those for white births for almost every age group.

The number of infants born in triplet and higher order plural deliveries rose again, from 2,139 in 1987 to 2,385 in 1988, a 12-percent increase. The proportion of all multiple births that were triplet or higher order plural births also increased, from 2.5 percent in 1987 to 2.7 percent in 1988.

This increasing incidence of multiple births in recent years may be associated with postponement of childbearing and the increasing use of fertility drugs. As noted previously, a growing number of mothers are delaying childbearing to relatively older ages, ages at which they are more likely to have a multiple birth. Moreover, the increasing use of fertility drugs to enable previously childless couples to have children is associated with an increased chance of multiple births (9).

Births to unmarried women

More than 1 million babies were born to unmarried mothers in 1988. The 1988 total of 1,005,299 births was 8 percent higher than in 1987 (933,013) and 51 percent greater than in 1980 (665,747). All measures of childbearing by unmarried women reached record

levels in 1988, continuing a trend of substantial increases in recent years. (See tables 18 and 19.) The rate per 1,000 unmarried women aged 15-44 years increased to 38.6 in 1988, 7 percent higher than in 1987 (36.1) and 31 percent higher than in 1980 (29.4). During this period of rapid increase in nonmarital childbearing, childbearing by married women has declined. Although the rate per 1,000 married women aged 15-44 years rose 1 percent from 89.6 in 1987 to 90.3 in 1988, this rate was still 7 percent below the 1980 level (97.0). The number of births to married women rose 1 percent between 1987 and 1988 (to 2,904,211), but was 1 percent below the 1980 total. Because the trends in marital and nonmarital childbearing have diverged in the 1980's, the proportion of all births to unmarried women has risen sharply, from 18.4 percent in 1980 to 25.7 percent in 1988.

Nonmarital childbearing increased for both white and black women in 1988, but the increases were greater for white women, continuing a pattern that has been observed in recent years. The number of births to unmarried white women totaled 539,696 in 1988, 8 percent more than in 1987 and 69 percent more than in 1980 (320,063). The number of babies born to unmarried black women in 1988 was 426,665, 7 percent above the 1987 total and 31 percent more than in 1980 (325,737).

Rates of nonmarital childbearing and proportions of nonmarital births among black women continue to be substantially higher than among white women. In recent years, however, because the increases have been much more rapid for white than for black women, the differentials by race have diminished. For example, the rate for unmarried black women was 88.9 in 1988, about three times the rate for unmarried white women, 26.6. In 1980, the rate for black women (82.9) was nearly five times that for white women (17.6). Unmarried women accounted for 17.7 percent of white births and 63.5 percent of black births in 1988. The comparable proportions in 1980 were 11.0 percent of white births and 55.2 percent of black births.

Childbearing by unmarried women is typically associated with less favor-

able outcomes because high-risk women, particularly teenagers, tend to predominate among the mothers. In recent years, however, the largest increases in nonmarital childbearing have occurred among relatively older women. One-third of unmarried mothers were 25 years and older in 1988 compared with 24 percent in 1980. This shift in the age distribution of unmarried mothers is attributable to two factors: The more rapid increase in birth rates for older unmarried women compared with younger women and the considerable rise in the number of unmarried women at relatively older ages. Rates for unmarried women aged 25-39 years rose 41-54 percent between 1980 and 1988, while rates for unmarried women under age 25 increased 29-39 percent. The highest incidence of births to unmarried mothers continues, however, to be among women aged 18-19 and 20-24 years, with rates of 52.7 and 56.7 per 1,000, respectively.

Women now aged 25-39 years were born during the baby boom years following World War II and have been postponing marriage and children to a great extent. Most women now in the age group 15-24 years were born in the years after the baby boom had ended, years when the annual numbers of births were substantially lower. Thus, although the birth rates for younger unmarried women have increased since 1980, the impact of these increases on overall levels of nonmarital births has been lessened because the number of these women has declined.

The pattern of more rapid increases in rates for older than for younger unmarried women is generally replicated in rates for white and for black women, but the pace of increase has been greater for white women. Between 1980 and 1988 increases in age-specific rates for white women aged 15-39 years were two to seven times the increases for black women.

Levels of nonmarital childbearing vary widely according to State of residence. The number and ratio of births to unmarried women for each State, by race of child, are shown in table 16. With very few exceptions, the ratios per 1,000 total live births in each State were higher in 1988 than in 1987.

Interval since last live birth

The interval since last live birth is computed for all second and higher order births from the date of the last live birth and the date of the present birth. Since 1981, 49 States and the District of Columbia have reported this information; Texas did not report the date of mother's last live birth.

The proportions of births occurring within various intervals following the mother's previous live birth have been stable for several years. In 1988, 13 percent of all second and higher order births occurred within 18 months of the mother's previous birth, 27 percent within 2 years, and 51 percent within 3 years.

The substantial racial differential observed over the years in the occurrence of births within very short intervals widened slightly in 1988. The proportion of white births born within 18 months of the previous birth remained at 11 percent in 1988, while the comparable proportion for black births rose from 18 to 19 percent. (See table 20 for 1988 data.)

Short intervals between births have been found to be associated with higher levels of low birth weight and other health risks (10). For example, in 1988, 9 percent of babies born within 18 months of a previous birth were of low birth weight compared with only 4.5–5.0 percent of babies born 1½–5 years after a previous birth. Likewise, closely spaced births were more likely to be characterized by low 1-minute Apgar scores (scores of less than 7). The increased health risks for these short birth intervals are in part associated with the greater likelihood that these births occur among young mothers and black mothers whose babies are at greater risk of low birth weight and low Apgar scores. For example, although teenage mothers accounted for only 7 percent of all second births in 1988, they accounted for 23 percent of all second births occurring within 18 months of the mother's previous live birth. Likewise black women accounted for a larger proportion of closely spaced second births (20 percent) than of all second births (16 percent).

Educational attainment of mother and father

Since 1980, 47 States and the District of Columbia have reported educational attainment of the parents on the birth certificates. Data have not been available for California, Texas, and Washington. In addition, in 1988 data were not available for New York State but were available for New York City.

In 1988 as in 1987, 80 percent of mothers and 86 percent of fathers were high school graduates. (Basic data are presented in tables 21–22.) The proportion of fathers who were high school graduates may be overstated as it was based largely on information on births to married parents. Often, when the mother is unmarried, information on the father is not provided on the birth certificate. Presumably, because unmarried mothers are likely to be young and therefore have had less opportunity to pursue higher education, the same is likely to be true of their male counterparts.

The proportion of mothers in 1988 who had completed college remained at the 1987 level of 18 percent. There was a slight decline in the proportion of mothers 30–34 years who were college graduates, from 35 percent to 34 percent. Conversely, the proportion of college graduates among mothers in their forties rose slightly from 34 to 35 percent. There was no change for younger mothers or mothers in their late thirties.

The proportion of college graduates was particularly high among older mothers having a first birth. (Data are not shown in this report.) For example, among first-time mothers aged 30–34 years, 47 percent were college graduates, as well as 53 percent of new mothers aged 35–39 years. More highly educated women are postponing motherhood until after the prime childbearing years to pursue further education and to settle into their careers (1,4).

The racial differential with regard to educational attainment declined slightly in 1988. The proportion of white mothers with 12 years or more of schooling decreased from the 1987 level of 83 percent to 82 percent in 1988, while the comparable proportion

for black mothers remained at the 1987 level of 69 percent. The proportions of college graduates for these two racial groups remained at the 1987 levels, 20 percent and 7 percent, respectively.

The median years of school completed by mothers increased only for mothers aged 35 years and over; for younger ages, the medians were unchanged from 1987. The same pattern was observed for white mothers, while no changes in medians were noted for black mothers.

Births to Hispanic mothers

In 1988, 30 States and the District of Columbia reported the Hispanic origin of the parents on the birth certificate. This was an increase of seven States over the number reporting this information during the years 1983–87. (The seven new States are Alabama, Connecticut, Kentucky, Massachusetts, Montana, North Carolina, and Washington.) Based on data published in a U.S. Bureau of the Census report (11), an estimated 95 percent of the U.S. Hispanic population resides in the 30 reporting States and the District of Columbia.

The number of births to Hispanic mothers in the reporting area totaled 449,604 in 1988 (table 23). Of these births, 60 percent were to Mexican mothers, 10 percent were to Puerto Rican mothers, and 13 percent were to Central and South American mothers. Cuban mothers accounted for about 2 percent of the Hispanic births.

Hispanic mothers as a group continue to be highly concentrated geographically; in addition, Mexican, Puerto Rican, Cuban, and Central and South American births each are concentrated within a few States (table 23). Ninety-two percent of Mexican births occurred to residents of Arizona, California, Illinois, and Texas; 89 percent of Puerto Rican births were to residents of Connecticut, Florida, Illinois, Massachusetts, New Jersey, and New York; 85 percent of Cuban births were to residents of California, Florida, and New Jersey; and 91 percent of Central and South American births were to residents of California, Florida, New Jersey, New York, and Texas.

In 1988, 95 percent of Hispanic births were white and 3 percent were black (table 24). These proportions have been essentially the same since 1978 when birth data for the Hispanic population first became available. There are substantial variations in the racial composition of the individual Hispanic groups.

Birth and fertility rates for the Hispanic population have been relatively stable over the past several years, but both rates increased 3–4 percent in 1988. The birth rate per 1,000 population was 24.1 in 1988, compared with 23.3 in 1987. The fertility rate per 1,000 women aged 15–44 years was 96.4 in 1988, compared with 93.0 in 1987. (Rates for 1988 are shown in table 25.) These rates were 54 and 47 percent higher than rates for the non-Hispanic population (15.7 and 65.7, respectively). The differential in rates between the Hispanic and non-Hispanic populations has changed little since 1978 when the rates were first computed. (It is not possible to compute birth and fertility rates for the non-Hispanic population by race because the necessary population data for the Hispanic reporting area are not available.) Birth and fertility rates for the Mexican population increased 3–4 percent in 1988, to 23.2 and 98.0, respectively. Because rates for other Hispanic groups are based on relatively small populations, valid comparisons of annual changes are not possible.

About 1 in 6 Hispanic-origin births was to a teenaged mother in 1988, compared with 1 in 10 white non-Hispanic births and nearly 1 in 4 black non-Hispanic births (table 26). There are wide variations in the incidence of teenage childbearing among the various Hispanic groups: 17–21 percent of Mexican and Puerto Rican mothers compared with 6–8 percent of Cuban and Central and South American mothers. These relative levels of teenage childbearing have been observed for many years.

Age-specific birth rates for the Hispanic population computed in 1980, based on census data, showed that the fertility of Mexican women aged 20 years and older was much higher than that of other comparably aged

Hispanic or non-Hispanic women (12). Although comparable rates cannot be computed for years since 1980, related data on the proportion of births of fourth and higher orders (a measure of the incidence of large families) suggest that the high fertility of Mexican women continued in 1988. Eighteen percent of births to Mexican women were fourth or higher order, compared with 12 percent of Puerto Rican and Central and South American births, 6–8 percent of Cuban and white non-Hispanic births, and 14 percent of black non-Hispanic births (table 27).

The incidence of childbearing by unmarried mothers increased among Hispanic and non-Hispanic women in 1988. One-third of all Hispanic births and one-quarter of all non-Hispanic births were to unmarried women. The proportions for individual Hispanic groups differed considerably: 31 percent, Mexican; 53 percent, Puerto Rican; 16 percent, Cuban; and 36 percent, Central and South American. Fifteen percent of white non-Hispanic births and 64 percent of black non-Hispanic births were to unmarried women (table 27).

Except for Cuban women, Hispanic mothers are much less likely than non-Hispanic mothers to have completed high school. In 1988, 58 percent of all Hispanic women giving birth were high school graduates compared with 83 percent of white non-Hispanic and 69 percent of black non-Hispanic mothers. Educational attainment varies considerably among the individual Hispanic groups—43 percent of Mexican mothers, 55 percent of Puerto Rican mothers, 82 percent of Cuban mothers, and 68 percent of Central and South American mothers were high school graduates (table 27).

Forty-three percent of all Hispanic women giving birth in 1988 were born in the United States, and 57 percent were foreign or Puerto Rican born. The proportion born in the United States varied widely among the Hispanic groups—41 percent, Mexican; 53 percent, Puerto Rican; 17 percent, Cuban; and 4 percent, Central and South American. Differentials in childbearing characteristics of native and foreign-born Hispanic mothers have been reported elsewhere (13).

The proportion of Hispanic mothers who received prenatal care beginning in the first trimester of pregnancy was 61 percent in 1988, the same level as for black non-Hispanic mothers, but considerably below the level for white non-Hispanic mothers (82 percent). Cuban mothers were more likely than any other group to receive early care in 1988 (83 percent). The proportions of Hispanic women beginning care in the first trimester were 58 percent for Mexican women and 63 percent for Puerto Rican and Central and South American women (table 27).

Consistent with the relatively low levels of early care among most Hispanic women, these women were much more likely to receive care beginning in the third trimester or to have no care at all. In 1988, 12 percent of all Hispanic mothers received late or no prenatal care compared with 4 percent of white non-Hispanic and 11 percent of black non-Hispanic mothers. The proportions for individual Hispanic groups ranged from 4 percent (Cuban mothers) to 10–14 percent (Mexican, Puerto Rican, and Central and South American mothers).

High proportions of teenage mothers, low levels of educational attainment, and less timely receipt of prenatal care are generally associated with a relatively high incidence of low birth weight. This is not the case for Mexican and Central and South American mothers, however. In 1988, 5.6 percent of babies born to Mexican and Central and South American mothers weighed less than 2,500 grams (5½ pounds) at birth, the same proportion as for white non-Hispanic babies. The proportions for other Hispanic groups were 5.9 percent, Cuban; and 9.4 percent, Puerto Rican. The highest proportion continues to be observed for black non-Hispanic babies, 13.1 percent. (See table 27.)

Although the incidence of low birth weight is quite favorable for most Hispanic groups, the incidence of preterm births, another measure of pregnancy outcome, is somewhat less favorable among the same groups. Overall, 11 percent of Hispanic babies were born prior to 37 completed weeks of

gestation, compared with 8 percent of white non-Hispanic and 19 percent of black non-Hispanic babies. The proportions for individual Hispanic groups were 9 percent, Cuban; 10 percent, Central and South American; 11 percent, Mexican; and 13 percent, Puerto Rican.

The proportions of babies with low 1- and 5-minute Apgar scores (scores less than 7) were about the same for Hispanic babies (except Cuban) as for white non-Hispanic babies. Scores below 7 suggest that the baby is in some difficulty. (See section below on Apgar score.) In 1988, 7.3 percent of Hispanic infants had 1-minute scores below 7 compared with 8.0 percent of white non-Hispanic and 11.2 percent of black non-Hispanic babies. The proportions of low 1-minute scores ranged from 4.9 to 9.3 percent for individual Hispanic groups.

Low 5-minute scores were reported for 1.4 percent of all Hispanic babies, compared with 1.3 percent of white non-Hispanic and 2.9 percent of black non-Hispanic babies. The range of low 5-minute scores for the various Hispanic groups was 1.0–1.6 percent (table 27).

Births of other race and national origin groups

The number of Filipino and Hawaiian births increased 4 percent between 1987 and 1988, followed by increases of 5 percent for American Indian births and 7 percent for Japanese births. The largest increases were observed for Chinese (19 percent) and Other Asian or Pacific Islander (12 percent) births. (Data for 1988 are shown in table 28.) "Other Asian or Pacific Islander" births include those reported as Asian Indian, Cambodian, Korean, Laotian, Thai, and Vietnamese.

The 19-percent increase in Chinese births can be attributed in large part to the 21-percent increase in Chinese births to California residents; Chinese births to California residents accounted for 48 percent of all Chinese births in the United States in 1988. The majority of the 12-percent rise in Other Asian or Pacific Islander births occurred to residents of California, New York, and New Jersey.

The incidence of teenage childbearing among Chinese, Japanese, Filipino, and Other Asian or Pacific Islander mothers remained very low in 1988 (1–6 percent) compared with American Indian (18 percent) and Hawaiian (15 percent) mothers. The proportions of births to white and black teenage mothers were 10 percent and 23 percent, respectively. Conversely, the proportion of births to mothers 30 years and over was high for Chinese, Japanese, Filipino, and Other Asian or Pacific Islander mothers—38–57 percent—compared with 21 percent for American Indian mothers and 23 percent for Hawaiian mothers. The corresponding proportions for white and black mothers were 30 percent and 20 percent, respectively. Childbearing patterns among these groups have remained very stable for several years.

High proportions of teenage childbearing are associated with higher completed fertility (as indicated by a high proportion of fourth and higher order births) and low proportions of college graduates. This pattern, or its converse, is seen for all racial groups except Other Asian or Pacific Islanders. Although Other Asian or Pacific Islander mothers had a high proportion of fourth and higher order births, their low proportion of teenage childbearing was consistent with their high proportion of college graduates.

Levels of low birth weight for racial and national origin groups other than white and black ranged from 4.7 percent (Chinese) to 7.1 percent (Filipino) (table 29). Between 1987 and 1988, the proportion of low-birth-weight babies declined among all groups except Hawaiian, where low birth weight rose from 6.6 percent to 6.8 percent, and Other Asian and Pacific Islander births, where it remained at 6.4 percent. Overall, these low-birth-weight levels more closely resemble those of white babies (5.6 percent) than of black babies (13.0 percent). In part, these relatively low levels of low-birth-weight babies may be due to the comparatively few births to teenagers among all groups except among American Indians and Hawaiians. Births to teenage mothers are at a much greater risk of low birth weight than are births

to older mothers. (See earlier section on birth weight.)

Month of pregnancy prenatal care began

The proportion of mothers beginning prenatal care in the first trimester has remained stable at 76 percent each year since 1979 (except in 1984 when it was 77 percent). Similarly, the proportion of mothers initiating care in the third trimester or receiving no care at all has remained at 6 percent since 1983. (See table 30 for 1988 data.) Much of the lack of improvement in early receipt of prenatal care is associated with the increasing proportion of births to unmarried mothers who are much less likely than married mothers to begin care early. (Data are not shown in this report.)

The racial differential in the timely receipt of prenatal care continued in 1988. Seventy-nine percent of white mothers compared with 61 percent of black mothers began care in the first trimester, the same as in 1987. The proportions of white mothers and black mothers who delayed care or received no care also remained at their 1987 levels of 5 percent and 11 percent, respectively.

Although the timing of the first prenatal care visit is often used as a measure of the adequacy of prenatal care received, it is a limited yardstick because early care does not always mean continuous care. The Kessner Index provides an alternative, multidimensional measure which examines when prenatal care began in light of the total number of prenatal visits made by the mother as well as the gestational age of the baby (14). Care is defined as "adequate," "intermediate," or "inadequate." In 1988, 69 percent of all mothers received adequate care and 8 percent received inadequate care. The substantial racial disparity noted with regard to initiation of care is also apparent for adequacy of care. In 1988, 74 percent of white mothers but only 51 percent of black mothers received adequate care. Conversely, 6 percent of white mothers and 16 percent of black mothers received inadequate care.

Timing of prenatal care improved for both the youngest and oldest mothers between 1987 and 1988. For mothers under 16 years, and 40 years and over, the proportion receiving early care increased 2-5 percent. For mothers aged under 16 years, 18 years, and 35 years and over, the proportions receiving late or no care declined 1-9 percent. These reductions were most pronounced at the older ages. There were virtually no changes in the proportions for other age groups.

Initiation of care varies with age of mother. The older a woman is the more likely she is to initiate care in the first trimester of pregnancy. For example, in 1988 only 53 percent of mothers 15-19 years began care in the first trimester compared with 85 percent of mothers 30-34 years. On the other hand, teenage mothers were more likely to receive late or no care than older mothers. In 1988, 13 percent of teenage mothers, compared with 3-4 percent of mothers in their thirties, initiated care in the third trimester or received no care at all.

Timing of the first prenatal visit also is associated with level of educational attainment (15). In 1988, 92 percent of mothers with college degrees began care in the first trimester compared with only 56 percent of mothers who had less than a high school education. The likelihood of a pregnant woman obtaining late or no care decreases steadily as her educational level increases.

A review of prenatal-care data by State (not presented in this report) shows large differences in the percent of mothers receiving late or no care. For white mothers, the proportions ranged between 2 and 15 percent. Among States reporting at least 1,000 black births in 1988, the range in the proportion of black mothers receiving late or no care was 6 to 19 percent. Between 1987 and 1988, 28 States and the District of Columbia showed increases and 23 States showed declines in the proportion of white mothers receiving late or no care. Among the 37 States and the District of Columbia with at least 1,000 black births in 1988, 31 States and the District of Columbia showed increases, while 6 States showed reductions.

Number of prenatal visits

In 1988, 49 States and the District of Columbia reported the number of prenatal visits on their birth certificates; California did not report this information. The median number of prenatal visits made by mothers who received any prenatal care was 12.0 in 1988, the same as in 1987. The medians for white and black mothers also remained unchanged from the previous year at 12.2 and 10.6 visits, respectively. (Basic data for 1988 are shown in table 31.)

Not surprisingly, the median number of prenatal visits is related to the point in pregnancy at which prenatal care began. The earlier care is initiated, the more visits a mother is likely to have. In 1988, mothers beginning care in the first trimester had a median of 12.4 visits; mothers beginning care in the third trimester had a median of 5.1 visits.

Much of the racial differential observed in the number of prenatal visits is associated with the tendency of white mothers to initiate prenatal care earlier in pregnancy than black mothers. (See previous section.) Differences between white and black mothers are reduced substantially when median visits are viewed in light of the trimester in which prenatal care began. In 1988, the median number of visits according to trimester in which white mothers initiated care was 12.5 for the first trimester, 9.5 for the second trimester, and 5.3 for the third trimester. For black mothers, the medians were 12.1, 8.7, and 4.7 for respective trimesters.

Length of gestation

The length of gestation is measured from the first day of the mother's last normal menstrual period to the date of birth. The proportion of babies born preterm, that is, before 37 weeks of gestation, remained unchanged from the 1987 level of 10.2 percent. This percentage has risen almost every year since 1981 when it was 9.4 percent. (Data for 1988 are shown in table 32.)

Although there was no change between 1987 and 1988 in the proportion preterm among white infants (8.5 percent), the proportion preterm among black babies increased from 18.0 to

18.3 percent, consequently increasing the already substantial racial disparity.

The likelihood of low birth weight is affected by the length of gestation. In 1988, among infants born before 37 weeks of gestation, 38.8 percent were of low birth weight (less than 2,500 grams or 5 pounds 8 ounces), while only 3.2 percent of babies born at term (37 to 41 weeks) and 2.2 percent of those born postterm (42 weeks and over) were of low birth weight.

The racial disparity in low birth weight, discussed in an earlier section of this report, is far more apparent for term and postterm than for preterm infants. Among preterm infants the percent low birth weight is 12 percent higher for black than for white babies (42.2 and 37.7 percent, respectively). For term and postterm infants, however, it is more than twice as high for black babies. Among term infants, 6.1 percent of black babies and 2.6 percent of white babies were of low birth weight; among postterm infants, 4.5 percent of black infants and 1.8 percent of white infants were of low birth weight.

Apgar score

The Apgar score is a numerical expression of the physical condition of an infant at birth developed by the late physician Virginia Apgar. It is a summary assessment of the heart rate, respiratory effort, muscle tone, reflex irritability, and color of the newborn. Each of these factors is assigned a value from 0 to 2, allowing a maximum score of 10. Since 1983, the Apgar scores at 1 and 5 minutes after birth have been reported by 46 States and the District of Columbia. (See tables 33 and 34 for 1988 data.)

In 1988, the proportion of high 1-minute Apgar scores (scores of 9-10) increased for the second year in a row, from 41.9 percent to 42.1 percent. This proportion had been declining annually from 49.0 percent in 1978 when these data first became available. The racial differential in scores persisted in 1988. Black babies continued to have a slightly larger proportion of high 1-minute scores than white babies, 43.4 percent compared with 41.8 percent.

In 1988, the proportion of high 5-minute Apgar scores also increased

over the 1987 level, from 88.6 percent to 88.9 percent. There were increases for both white and black infants. In 1988, these proportions were 89.4 percent and 86.6 percent, respectively.

The 5-minute Apgar score is considered to be a better predictor of an infant's long-term health status and chances for survival than the 1-minute

score (16). Between 1987 and 1988, the proportion of babies with low 5-minute scores (scores less than 7) decreased for every age group. Differences in Apgar scores by age of mother were again noted in 1988. The age pattern is similar to that observed for other birth outcomes such as percent preterm and percent low birth weight. Newborns of

mothers aged 25–34 years are least likely to have low 5-minute Apgar scores, 1.4 percent compared with 2.1–3.4 percent for births to teenagers and to mothers in their forties. This age differential was evident for both black and white births, but the incidence of low scores was higher for black babies at each age.

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Table 1. Live births, birth rates, and fertility rates, by race of child: United States, specified years 1940–55 and each year 1960–88

[Birth rates are live births per 1,000 population in specified group. Fertility rates per 1,000 women aged 15–44 years in specified group. Population enumerated as of April 1 for census years and estimated as of July 1 for all other years. Beginning with 1970, excludes births to nonresidents of the United States]

Year	Number				Birth rate				Fertility rate			
	All races	White	All other		All races	White	All other		All races	White	All other	
			Total	Black			Total	Black			Total	Black
Registered births												
1988	3,909,510	3,046,162	863,348	671,976	15.9	14.7	22.5	22.2	67.2	63.0	87.5	86.6
1987	3,809,394	2,992,488	816,906	641,567	15.7	14.5	21.7	21.6	65.7	62.0	84.4	83.8
1986	3,756,547	2,970,439	786,108	621,221	15.6	14.5	21.4	21.2	65.4	61.9	83.0	82.4
1985	3,760,561	2,991,373	769,188	608,193	15.8	14.8	21.4	21.1	66.2	63.0	83.2	82.2
1984 ¹	3,669,141	2,923,502	745,639	592,745	15.5	14.5	21.2	20.8	65.4	62.2	82.5	81.4
1983 ¹	3,638,933	2,904,250	734,683	586,027	15.5	14.6	21.3	20.9	65.8	62.4	83.2	81.7
1982 ¹	3,680,537	2,942,054	738,483	592,641	15.9	14.9	21.9	21.4	67.3	63.9	85.5	84.1
1981 ¹	3,629,238	2,908,669	720,569	587,797	15.8	14.8	22.0	21.6	67.4	63.9	86.4	85.4
1980 ¹	3,612,258	2,898,732	713,526	589,616	15.9	14.9	22.5	22.1	68.4	64.7	88.6	88.1
1979 ¹	3,494,398	2,808,420	685,978	577,855	15.6	14.5	22.2	22.0	67.2	63.4	88.5	88.3
1978 ¹	3,333,279	2,681,116	652,163	551,540	15.0	14.0	21.6	21.3	65.5	61.7	87.0	86.7
1977 ¹	3,326,632	2,691,070	635,562	544,221	15.1	14.1	21.6	21.4	66.8	63.2	87.7	88.1
1976 ¹	3,167,788	2,567,614	600,174	514,479	14.6	13.6	20.8	20.5	65.0	61.5	85.8	85.8
1975 ¹	3,144,198	2,551,996	592,202	511,581	14.6	13.6	21.0	20.7	66.0	62.5	87.7	87.9
1974 ¹	3,159,958	2,575,792	584,166	507,162	14.8	13.9	21.2	20.8	67.8	64.2	89.8	89.7
1973 ¹	3,136,965	2,551,030	585,935	512,597	14.8	13.8	21.7	21.4	68.8	64.9	93.4	93.6
1972 ¹	3,258,411	2,655,558	602,853	531,329	15.6	14.5	22.8	22.5	73.1	68.9	99.5	99.9
1971 ²	3,555,970	2,919,746	636,224	564,960	17.2	16.1	24.6	24.4	81.6	77.3	109.1	109.7
1970 ²	3,731,386	3,091,264	640,122	572,362	18.4	17.4	25.1	25.3	87.9	84.1	113.0	115.4
1969 ²	3,600,206	2,993,614	606,592	543,132	17.9	16.9	24.5	24.4	86.1	82.2	111.6	112.1
1968 ²	3,501,564	2,912,224	589,340	531,152	17.6	16.6	24.2	24.2	85.2	81.3	111.9	112.7
1967 ³	3,520,959	2,922,502	598,457	543,976	17.8	16.8	25.0	25.1	87.2	82.8	117.1	118.5
1966 ²	3,606,274	2,993,230	613,044	558,244	18.4	17.4	26.1	26.2	90.8	86.2	123.5	124.7
1965 ²	3,760,358	3,123,860	636,498	581,126	19.4	18.3	27.6	27.7	96.3	91.3	131.9	133.2
1964 ²	4,027,490	3,369,160	658,330	607,556	21.1	20.0	29.2	29.5	104.7	99.8	140.0	142.6
1963 ^{2,4}	4,098,020	3,326,344	638,928	580,658	21.7	20.7	29.7	---	108.3	103.6	143.7	---
1962 ^{2,4}	4,167,362	3,394,068	641,580	584,610	22.4	21.4	30.5	---	112.0	107.5	147.8	---
1961 ²	4,268,326	3,600,864	667,462	611,072	23.3	22.2	31.6	---	117.1	112.3	153.0	---
1960 ²	4,257,850	3,600,744	657,106	602,264	23.7	22.7	32.1	31.9	118.0	113.2	153.6	153.5
Births adjusted for underregistration												
1955	4,097,000	3,485,000	613,000	---	25.0	23.8	34.5	---	118.3	113.7	154.3	---
1950	3,632,000	3,108,000	524,000	---	24.1	23.0	33.3	---	106.2	102.3	137.3	---
1945	2,858,000	2,471,000	388,000	---	20.4	19.7	26.5	---	85.9	83.4	106.0	---
1940	2,559,000	2,199,000	360,000	---	19.4	18.6	26.7	---	79.9	77.1	102.4	---

¹Based on 100 percent of births in selected States and on a 50-percent sample of births in all other States; see Technical notes.

²Based on a 50-percent sample of births.

³Based on a 20- to 50-percent sample of births.

⁴Figures by race exclude data for New Jersey.

Table 2. Live births by age of mother, live-birth order, and race of child: United States, 1988

[Live-birth order refers to number of children born alive to mother]

Live-birth order and race of child	Age of mother													
	All ages	Under 15 years	15-19 years						20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years
			Total	15 years	16 years	17 years	18 years	19 years						
All races														
Total	3,909,510	10,588	478,353	25,605	55,150	95,869	133,370	168,359	1,067,472	1,239,256	803,547	269,518	39,349	1,427
First child	1,595,587	10,234	364,073	23,832	48,826	78,622	99,509	113,284	505,975	447,219	206,649	54,531	6,745	161
Second child	1,272,610	298	91,356	1,560	5,605	14,634	27,376	42,181	361,743	443,769	285,714	80,945	8,605	180
Third child	631,040	12	17,546	74	449	1,966	5,075	9,982	139,993	223,016	179,072	63,248	7,956	197
Fourth child	236,149	5	2,738	8	27	179	686	1,838	40,682	78,792	74,637	33,623	5,480	192
Fifth child	85,429	-	367	1	6	18	82	260	10,361	25,617	29,205	16,200	3,514	165
Sixth child	35,078	-	41	-	-	2	10	29	2,618	8,935	12,591	8,533	2,255	105
Seventh child	15,635	-	11	-	-	2	4	5	601	3,147	5,704	4,570	1,493	109
Eighth child and over	15,956	-	8	-	-	-	2	6	231	1,645	4,823	5,977	2,972	300
Not stated	22,026	39	2,213	130	237	446	626	774	5,268	7,116	5,152	1,891	329	18
White														
Total	3,046,162	4,073	315,471	12,870	32,500	61,537	89,928	118,636	804,622	1,010,748	661,414	217,754	31,068	1,012
First child	1,259,158	3,948	249,899	12,255	29,742	52,828	70,689	84,385	401,966	377,778	174,324	45,649	5,474	120
Second child	1,014,991	97	54,546	528	2,455	7,611	16,276	27,676	275,082	370,193	240,929	67,008	7,004	132
Third child	486,177	7	8,461	20	149	741	2,291	5,260	94,605	176,990	148,052	51,498	6,413	151
Fourth child	170,738	2	1,022	3	2	60	234	723	23,171	57,080	58,402	26,569	4,341	151
Fifth child	57,242	-	117	-	2	7	27	81	4,834	16,182	21,090	12,163	2,730	126
Sixth child	22,454	-	16	-	-	2	3	11	1,058	4,987	8,461	6,213	1,651	68
Seventh child	9,716	-	4	-	-	-	2	2	230	1,552	3,576	3,180	1,102	72
Eighth child and over	9,859	-	6	-	-	-	2	4	102	703	2,686	4,058	2,123	181
Not stated	15,827	19	1,400	64	150	288	404	494	3,574	5,283	3,894	1,416	230	11
All other														
Total	863,348	6,515	162,882	12,735	22,650	34,332	43,442	49,723	262,850	228,508	142,133	51,764	8,281	415
First child	336,429	6,286	114,174	11,577	19,084	25,794	28,820	28,899	104,009	69,441	32,325	8,882	1,271	41
Second child	257,619	201	36,810	1,032	3,150	7,023	11,100	14,505	86,661	73,576	44,785	13,937	1,601	48
Third child	144,863	5	9,085	54	300	1,225	2,784	4,722	45,388	46,026	31,020	11,750	1,543	46
Fourth child	65,411	3	1,716	5	25	119	452	1,115	17,511	21,712	16,235	7,054	1,139	41
Fifth child	28,187	-	250	1	4	11	55	179	5,527	9,435	8,115	4,037	784	39
Sixth child	12,624	-	25	-	-	-	7	18	1,560	3,948	4,130	2,320	604	37
Seventh child	5,919	-	7	-	-	2	2	3	371	1,595	2,128	1,390	391	37
Eighth child and over	6,097	-	2	-	-	-	-	2	129	942	2,137	1,919	849	119
Not stated	6,199	20	813	66	87	158	222	280	1,694	1,833	1,258	475	99	7
Black¹														
Total	671,976	6,182	146,326	11,914	20,814	31,105	38,702	43,791	220,301	167,684	93,765	32,534	4,981	203
First child	258,411	5,970	101,880	10,839	17,473	23,214	25,337	25,017	83,888	43,835	17,406	4,736	675	21
Second child	198,656	185	33,456	956	2,953	6,486	10,079	12,982	73,470	54,869	27,787	7,986	874	29
Third child	116,071	5	8,392	53	284	1,131	2,601	4,323	39,399	37,086	22,623	7,628	914	24
Fourth child	53,050	3	1,591	5	21	111	424	1,030	15,433	17,672	12,495	5,081	753	22
Fifth child	22,311	-	234	1	4	10	49	170	4,816	7,529	6,234	2,950	528	20
Sixth child	9,700	-	19	-	-	-	5	14	1,351	3,138	3,116	1,633	421	22
Seventh child	4,315	-	7	-	-	2	2	3	325	1,250	1,537	936	243	17
Eighth child and over	4,179	-	1	-	-	-	-	1	104	749	1,556	1,218	509	42
Not stated	5,283	19	746	60	79	151	205	251	1,515	1,556	1,011	366	64	6

¹Included in All other.

Table 3. Birth rates by age of mother, live-birth order, and race of child: United States, 1988

[Rates are live births per 1,000 women in specified age and racial group. Live-birth order refers to number of children born alive to mother]

Live-birth order and race of child	Age of mother										
	15-44 years ¹	10-14 years	15-19 years			20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years
			Total	15-17 years	18-19 years						
All races											
Total	67.2	1.3	53.6	33.8	81.7	111.5	113.4	73.7	27.9	4.8	0.2
First child	27.6	1.3	41.0	29.1	57.9	53.1	41.2	19.1	5.7	0.8	0.0
Second child	22.0	0.0	10.3	4.2	18.9	38.0	40.8	26.4	8.4	1.1	0.0
Third child	10.9	0.0	2.0	0.5	4.1	14.7	20.5	16.5	6.6	1.0	0.0
Fourth child	4.1	0.0	0.3	0.0	0.7	4.3	7.3	6.9	3.5	0.7	0.0
Fifth child	1.5	-	0.0	0.0	0.1	1.1	2.4	2.7	1.7	0.4	0.0
Sixth and seventh child	0.9	-	0.0	0.0	0.0	0.3	1.1	1.7	1.4	0.5	0.0
Eighth child and over	0.3	-	0.0	-	0.0	0.0	0.2	0.4	0.6	0.4	0.0
White											
Total	63.0	0.6	43.7	25.5	69.2	102.5	111.6	72.9	26.9	4.4	0.2
First child	26.2	0.6	34.8	22.7	51.7	51.4	41.9	19.3	5.7	0.8	0.0
Second child	21.1	0.0	7.6	2.5	14.7	35.2	41.1	26.7	8.3	1.0	0.0
Third child	10.1	0.0	1.2	0.2	2.5	12.1	19.6	16.4	6.4	0.9	0.0
Fourth child	3.6	0.0	0.1	0.0	0.3	3.0	6.3	6.5	3.3	0.6	0.0
Fifth child	1.2	-	0.0	0.0	0.0	0.6	1.8	2.3	1.5	0.4	0.0
Sixth and seventh child	0.7	-	0.0	0.0	0.0	0.2	0.7	1.3	1.2	0.4	0.0
Eighth child and over	0.2	-	0.0	-	0.0	0.0	0.1	0.3	0.5	0.3	0.0
All other											
Total	87.5	4.0	95.3	67.6	137.4	152.3	122.3	77.8	33.4	7.0	0.4
First child	34.3	3.9	67.1	55.0	85.6	60.7	37.5	17.9	5.8	1.1	0.0
Second child	26.3	0.1	21.6	10.9	38.0	50.5	39.7	24.7	9.1	1.4	0.1
Third child	14.8	0.0	5.3	1.5	11.1	26.5	24.8	17.1	7.7	1.3	0.0
Fourth child	6.7	0.0	1.0	0.1	2.3	10.2	11.7	9.0	4.6	1.0	0.0
Fifth child	2.9	-	0.1	0.0	0.3	3.2	5.1	4.5	2.6	0.7	0.0
Sixth and seventh child	1.9	-	0.0	0.0	0.0	1.1	3.0	3.5	2.4	0.8	0.1
Eighth child and over	0.6	-	0.0	-	0.0	0.1	0.5	1.2	1.2	0.7	0.1
Black²											
Total	86.6	4.8	105.9	76.6	150.5	157.5	112.8	66.0	27.5	5.6	0.3
First child	33.5	4.7	74.1	62.1	92.4	60.4	29.8	12.4	4.0	0.8	0.0
Second child	25.8	0.1	24.3	12.5	42.3	52.9	37.3	19.8	6.8	1.0	0.0
Third child	15.1	0.0	6.1	1.8	12.7	28.4	25.2	16.1	6.5	1.0	0.0
Fourth child	6.9	0.0	1.2	0.2	2.7	11.1	12.0	8.9	4.3	0.9	0.0
Fifth child	2.9	-	0.2	0.0	0.4	3.5	5.1	4.4	2.5	0.6	0.0
Sixth and seventh child	1.8	-	0.0	0.0	0.0	1.2	3.0	3.3	2.2	0.8	0.1
Eighth child and over	0.5	-	0.0	-	0.0	0.1	0.5	1.1	1.0	0.6	0.1

¹Rates computed by relating total births, regardless of age of mother, to women aged 15-44 years.
²Included in All other.

Table 4. Total fertility rates and birth rates by age of mother and race of child: United States, 1970-88

[Total fertility rates are sums of birth rates for 5-year age groups multiplied by 5. Birth rates are live births per 1,000 women in specified group, enumerated as of April 1 for 1970 and 1980 and estimated as of July 1 for all other years]

Year and race of child	Total fertility rate	Age of mother									
		10-14 years	15-19 years			20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years
			Total	15-17 years	18-19 years						
All races											
1988	1,932.0	1.3	53.6	33.8	81.7	111.5	113.4	73.7	27.9	4.8	0.2
1987	1,871.0	1.3	51.1	31.8	80.2	108.9	110.8	71.3	26.2	4.4	0.2
1986	1,836.0	1.3	50.6	30.6	81.0	108.2	109.2	69.3	24.3	4.1	0.2
1985	1,842.5	1.2	51.3	31.1	80.8	108.9	110.5	68.5	23.9	4.0	0.2
1984 ¹	1,805.5	1.2	50.9	31.1	78.3	107.3	108.3	66.5	22.8	3.9	0.2
1983 ¹	1,802.5	1.1	51.7	32.0	78.1	108.3	108.7	64.6	22.1	3.8	0.2
1982 ¹	1,828.5	1.1	52.9	32.4	80.7	111.3	111.0	64.2	21.1	3.9	0.2
1981 ¹	1,815.0	1.1	52.7	32.1	81.7	111.8	112.0	61.4	20.0	3.8	0.2
1980 ¹	1,839.5	1.1	53.0	32.5	82.1	115.1	112.9	61.9	19.8	3.9	0.2
1979 ¹	1,808.0	1.2	52.3	32.3	81.3	112.8	111.4	60.3	19.5	3.9	0.2
1978 ¹	1,760.0	1.2	51.5	32.2	79.8	109.9	108.5	57.8	19.0	3.9	0.2
1977 ¹	1,789.5	1.2	52.8	33.9	80.9	112.9	111.0	56.4	19.2	4.2	0.2
1976 ¹	1,738.0	1.2	52.8	34.1	80.5	110.3	106.2	53.6	19.0	4.3	0.2
1975 ¹	1,774.0	1.3	55.6	36.1	85.0	113.0	108.2	52.3	19.5	4.6	0.3
1974 ¹	1,835.0	1.2	57.5	37.3	88.7	117.7	111.5	53.8	20.2	4.8	0.3
1973 ¹	1,879.0	1.2	59.3	38.5	91.2	119.7	112.2	55.6	22.1	5.4	0.3
1972 ¹	2,010.0	1.2	61.7	39.0	96.9	130.2	117.7	59.8	24.8	6.2	0.4
1971 ²	2,266.5	1.1	64.5	38.2	105.3	150.1	134.1	67.3	28.7	7.1	0.4
1970 ²	2,480.0	1.2	68.3	38.8	114.7	167.8	145.1	73.3	31.7	8.1	0.5
White											
1988	1,814.0	0.6	43.7	25.5	69.2	102.5	111.6	72.9	26.9	4.4	0.2
1987	1,766.5	0.6	41.9	24.1	68.6	101.1	109.5	70.8	25.2	4.0	0.2
1986	1,741.5	0.6	41.8	23.4	69.8	101.5	108.3	68.9	23.3	3.7	0.2
1985	1,754.0	0.6	42.8	24.0	70.1	102.8	110.0	68.1	22.7	3.6	0.2
1984 ¹	1,718.5	0.6	42.5	23.9	68.1	101.4	107.7	66.1	21.7	3.5	0.2
1983 ¹	1,717.5	0.6	43.6	24.8	68.3	102.6	108.0	64.0	21.0	3.5	0.2
1982 ¹	1,742.0	0.6	44.6	25.2	70.8	105.9	110.3	63.3	20.0	3.5	0.2
1981 ¹	1,726.0	0.5	44.6	25.1	71.9	106.3	111.3	60.2	18.7	3.4	0.2
1980 ¹	1,748.5	0.6	44.7	25.2	72.1	109.5	112.4	60.4	18.5	3.4	0.2
1979 ¹	1,715.5	0.6	43.7	24.7	71.0	107.0	110.8	59.0	18.3	3.5	0.2
1978 ¹	1,667.5	0.6	42.9	24.9	69.4	104.1	107.9	56.6	17.7	3.5	0.2
1977 ¹	1,703.0	0.6	44.1	26.1	70.5	107.7	110.9	55.3	18.0	3.8	0.2
1976 ¹	1,652.0	0.6	44.1	26.3	70.2	105.3	105.9	52.6	17.8	3.9	0.2
1975 ¹	1,686.0	0.6	46.4	28.0	74.0	108.2	108.1	51.3	18.2	4.2	0.2
1974 ¹	1,748.5	0.6	47.9	28.7	77.3	113.0	111.8	52.9	18.9	4.4	0.2
1973 ¹	1,783.0	0.6	49.0	29.2	79.3	114.4	112.3	54.4	20.7	4.9	0.3
1972 ¹	1,906.5	0.5	51.0	29.3	84.3	124.8	117.4	58.4	23.3	5.6	0.3
1971 ²	2,160.5	0.5	53.6	28.5	92.3	144.9	134.0	65.4	26.9	6.4	0.4
1970 ²	2,385.0	0.5	57.4	29.2	101.5	163.4	145.9	71.9	30.0	7.5	0.4

See footnotes at end of table.

Table 4. Total fertility rates and birth rates by age of mother and race of child: United States, 1970-88—Con.

[Total fertility rates are sums of birth rates for 5-year age groups multiplied by 5. Birth rates are live births per 1,000 women in specified group, enumerated as of April 1 for 1970 and 1980 and estimated as of July 1 for all other years]

Year and race of child	Total fertility rate	Age of mother									
		10-14 years	15-19 years			20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years
			Total	15-17 years	18-19 years						
All other											
1988	2,462.5	4.0	95.3	67.6	137.4	152.3	122.3	77.8	33.4	7.0	0.4
1987	2,349.0	4.0	90.9	64.7	131.2	145.4	117.3	73.8	31.5	6.5	0.4
1986	2,281.5	3.9	89.7	62.7	130.9	140.4	113.8	71.5	30.3	6.3	0.4
1985	2,263.0	3.8	89.7	62.9	128.7	138.5	113.5	70.3	30.5	5.9	0.4
1984 ¹	2,223.5	3.7	89.0	63.3	124.8	136.4	111.5	68.5	29.2	6.0	0.4
1983 ¹	2,225.0	3.5	89.3	64.2	123.9	136.8	112.1	68.4	28.6	5.9	0.4
1982 ¹	2,265.0	3.6	91.5	65.6	128.2	139.3	114.9	69.0	28.0	6.2	0.5
1981 ¹	2,274.5	3.6	91.8	65.2	130.8	140.8	115.9	68.5	27.6	6.3	0.4
1980 ¹	2,323.0	3.9	94.9	68.3	133.2	145.0	115.5	70.8	27.9	6.5	0.4
1979 ¹	2,309.5	4.1	96.5	70.5	134.9	144.3	114.6	68.3	27.3	6.4	0.4
1978 ¹	2,264.5	4.0	96.0	70.4	134.4	142.1	111.9	65.2	26.9	6.4	0.4
1977 ¹	2,278.5	4.3	99.5	74.8	136.8	142.3	111.5	63.4	27.3	6.9	0.5
1976 ¹	2,222.5	4.3	99.9	75.5	137.2	138.9	107.6	59.5	26.9	6.9	0.5
1975 ¹	2,276.0	4.7	106.4	80.5	146.1	141.0	108.7	58.8	27.6	7.5	0.5
1974 ¹	2,338.5	4.6	111.3	84.9	153.1	145.5	109.5	59.9	28.8	7.6	0.5
1973 ¹	2,443.0	5.0	117.5	90.5	160.9	151.6	111.2	63.2	30.9	8.6	0.6
1972 ¹	2,627.5	4.7	123.8	93.8	173.3	163.4	119.3	68.9	34.8	9.9	0.7
1971 ²	2,919.5	4.7	128.5	94.0	185.6	184.0	134.6	79.3	40.2	11.7	0.9
1970 ²	3,066.7	4.8	133.4	95.2	195.4	196.8	140.1	82.5	42.2	12.6	0.9
Black ³											
1988	2,402.0	4.8	105.9	76.6	150.5	157.5	112.8	66.0	27.5	5.6	0.3
1987	2,294.0	4.7	100.3	72.9	142.2	149.5	109.0	63.5	26.3	5.3	0.2
1986	2,227.0	4.6	98.1	70.0	141.0	143.7	105.9	62.2	25.5	5.1	0.3
1985	2,196.0	4.5	97.4	69.8	137.1	140.8	105.1	60.7	25.5	4.9	0.3
1984 ¹	2,153.5	4.3	95.7	69.7	132.0	137.9	103.2	59.5	24.8	5.1	0.2
1983 ¹	2,150.5	4.1	95.5	70.1	130.4	137.7	103.4	59.2	24.7	5.2	0.3
1982 ¹	2,188.5	4.1	97.0	71.2	133.3	139.1	106.9	60.4	24.4	5.4	0.4
1981 ¹	2,206.0	4.1	97.1	70.6	135.9	141.2	108.3	60.4	24.2	5.6	0.3
1980 ¹	2,266.0	4.3	100.0	73.6	138.8	146.3	109.1	62.9	24.5	5.8	0.3
1979 ¹	2,263.2	4.6	101.7	75.7	140.4	146.3	108.2	60.7	24.7	6.1	0.4
1978 ¹	2,218.0	4.4	100.9	75.0	139.7	143.8	105.4	58.3	24.3	6.1	0.4
1977 ¹	2,251.0	4.7	104.7	79.6	142.9	144.4	106.4	57.5	25.4	6.6	0.5
1976 ¹	2,187.0	4.7	104.9	80.3	142.5	140.5	101.6	53.6	24.8	6.8	0.5
1975 ¹	2,243.0	5.1	111.8	85.6	152.4	142.8	102.2	53.1	25.6	7.5	0.5
1974 ¹	2,298.5	5.0	116.5	90.0	158.7	146.7	102.2	54.1	27.0	7.6	0.6
1973 ¹	2,411.0	5.4	123.1	96.0	166.6	153.1	103.9	58.1	29.4	8.6	0.6
1972 ¹	2,601.0	5.1	129.8	99.5	179.5	165.0	112.4	64.0	33.4	9.8	0.7
1971 ²	2,902.0	5.1	134.5	99.4	192.6	186.6	128.0	74.8	38.9	11.6	0.9
1970 ²	3,098.7	5.2	140.7	101.4	204.9	202.7	136.3	79.6	41.9	12.5	1.0

¹Based on 100 percent of births in selected States and on a 50-percent sample of births in all other States; see Technical notes.

²Based on a 50-percent sample of births.

³Included in All other.

Table 5. Birth rates by live-birth order and race of child: United States, 1970, 1975, and 1980-88

[Rates are live births per 1,000 women aged 15-44 years, enumerated as of April 1 for 1970 and 1980 and estimated as of July 1 for all other years. Figures for live-birth order not stated are distributed]

Year and race of child	Total	Live-birth order						
		1	2	3	4	5	6 and 7	8 and over
All races								
1988.	67.2	27.6	22.0	10.9	4.1	1.5	0.9	0.3
1987.	65.7	27.2	21.6	10.5	3.9	1.4	0.8	0.3
1986.	65.4	27.2	21.6	10.3	3.8	1.4	0.8	0.3
1985.	66.2	27.6	22.0	10.4	3.8	1.4	0.8	0.3
1984 ¹ .	65.4	27.4	21.7	10.1	3.7	1.4	0.9	0.3
1983 ¹ .	65.8	27.8	21.5	10.1	3.7	1.4	0.9	0.3
1982 ¹ .	67.3	28.6	22.0	10.2	3.8	1.4	0.9	0.3
1981 ¹ .	67.4	29.0	21.6	10.2	3.8	1.5	0.9	0.4
1980 ¹ .	68.4	29.5	21.8	10.3	3.9	1.5	1.0	0.4
1975 ¹ .	66.0	28.1	20.9	9.4	3.9	1.7	1.3	0.7
1970 ² .	87.9	34.2	24.2	13.6	7.2	3.8	3.2	1.8
White								
1988.	63.0	26.2	21.1	10.1	3.6	1.2	0.7	0.2
1987.	62.0	25.9	20.9	9.8	3.4	1.1	0.6	0.2
1986.	61.9	26.0	20.9	9.6	3.3	1.1	0.6	0.2
1985.	63.0	26.5	21.4	9.7	3.3	1.1	0.7	0.2
1984 ¹ .	62.2	26.4	21.1	9.4	3.2	1.1	0.7	0.2
1983 ¹ .	62.4	26.8	20.9	9.4	3.3	1.2	0.7	0.2
1982 ¹ .	63.9	27.7	21.3	9.5	3.3	1.2	0.7	0.3
1981 ¹ .	63.9	28.1	20.9	9.4	3.3	1.2	0.8	0.3
1980 ¹ .	64.7	28.4	21.0	9.5	3.4	1.3	0.8	0.3
1975 ¹ .	62.5	26.7	20.3	8.8	3.5	1.5	1.1	0.5
1970 ² .	84.1	32.9	23.7	13.3	6.8	3.4	2.7	1.2
All other								
1988.	87.5	34.3	26.3	14.8	6.7	2.9	1.9	0.6
1987.	84.4	33.4	25.4	14.2	6.4	2.7	1.8	0.6
1986.	83.0	33.0	24.9	13.8	6.2	2.7	1.8	0.6
1985.	83.2	32.9	25.1	13.8	6.2	2.7	1.8	0.6
1984 ¹ .	82.5	32.8	24.7	13.7	6.2	2.7	1.8	0.6
1983 ¹ .	83.2	33.0	24.8	13.8	6.2	2.7	1.9	0.7
1982 ¹ .	85.5	33.8	25.6	14.2	6.4	2.8	1.9	0.7
1981 ¹ .	86.4	34.3	25.9	14.2	6.4	2.8	2.0	0.8
1980 ¹ .	88.6	35.6	26.2	14.4	6.5	2.9	2.1	0.9
1975 ¹ .	87.7	36.7	24.6	12.6	6.1	3.1	2.8	1.8
1970 ² .	113.0	42.4	26.9	15.9	9.7	6.1	6.7	5.3
Black ³								
1988.	86.6	33.5	25.8	15.1	6.9	2.9	1.8	0.5
1987.	83.8	32.8	24.9	14.5	6.5	2.8	1.7	0.5
1986.	82.4	32.5	24.5	14.1	6.3	2.7	1.7	0.5
1985.	82.2	32.4	24.5	13.9	6.3	2.7	1.8	0.6
1984 ¹ .	81.4	32.2	24.1	13.7	6.3	2.7	1.8	0.6
1983 ¹ .	81.7	32.3	24.1	13.7	6.3	2.8	1.8	0.6
1982 ¹ .	84.1	33.0	24.9	14.2	6.5	2.8	1.9	0.7
1981 ¹ .	85.4	33.8	25.2	14.3	6.6	2.9	2.0	0.8
1980 ¹ .	88.1	35.2	25.7	14.5	6.7	3.0	2.1	0.9
1975 ¹ .	87.9	36.9	24.2	12.6	6.3	3.2	2.9	1.6
1970 ² .	115.4	43.3	27.1	16.1	10.0	6.4	7.0	5.6

¹Based on 100 percent of births in selected States and on a 50-percent sample of births in all other States; see Technical notes.

²Based on a 50-percent sample of births.

³Included in All other.

Table 6. Live births by race of child, birth rates, and fertility rates: United States, each division and State, 1988

[By place of residence. Birth rates per 1,000 estimated population in each area; fertility rates per 1,000 women aged 15-44 years estimated in each area]

Division and State	Number			Birth rate	Fertility rate
	All races ¹	White	Black		
United States	3,909,510	3,046,162	671,976	15.9	67.2
New England	193,142	170,562	16,567	14.9	61.7
Maine	17,172	16,787	120	14.3	60.5
New Hampshire	17,364	16,837	149	16.0	64.8
Vermont	8,111	8,001	34	14.6	58.4
Massachusetts	88,194	75,857	8,584	15.0	60.9
Rhode Island	14,224	12,523	1,163	14.3	60.5
Connecticut	48,077	40,557	6,517	14.9	63.3
Middle Atlantic	564,053	430,973	113,199	15.0	64.1
New York	280,650	204,271	63,559	15.7	66.1
New Jersey	117,764	89,668	23,759	15.3	64.8
Pennsylvania	165,639	137,034	25,881	13.8	60.4
East North Central	637,544	514,792	109,611	15.1	63.9
Ohio	160,529	133,151	25,502	14.8	63.0
Indiana	81,643	71,286	9,452	14.7	61.8
Illinois	184,841	137,555	41,940	15.9	67.2
Michigan	139,714	111,098	26,060	15.1	62.7
Wisconsin	70,817	61,702	6,657	14.6	62.7
West North Central	265,355	233,289	21,924	14.9	64.8
Minnesota	66,748	60,386	2,770	15.5	65.3
Iowa	38,119	36,296	1,157	13.5	59.1
Missouri	76,492	62,723	12,690	14.9	64.4
North Dakota	10,103	8,986	137	15.1	67.4
South Dakota	11,194	9,178	112	15.7	71.3
Nebraska	23,907	21,784	1,431	14.9	65.3
Kansas	38,792	33,936	3,627	15.5	68.3
South Atlantic	654,422	448,626	190,894	15.4	65.5
Delaware	10,406	7,824	2,414	15.8	65.0
Maryland	75,768	48,926	23,797	16.4	66.3
District of Columbia	10,540	1,661	8,165	17.1	66.3
Virginia	93,127	67,441	22,654	15.5	62.4
West Virginia	21,846	20,801	926	11.6	50.3
North Carolina	97,579	65,947	28,881	15.0	62.5
South Carolina	55,114	33,114	21,498	15.9	65.1
Georgia	105,923	66,437	37,851	16.7	67.7
Florida	184,119	136,475	44,708	14.9	70.1
East South Central	224,588	159,513	62,986	14.6	61.7
Kentucky	51,058	45,506	5,120	13.7	57.7
Tennessee	70,711	53,081	17,027	14.4	60.4
Alabama	60,745	39,214	20,988	14.8	62.4
Mississippi	42,074	21,712	19,851	16.1	69.0
West South Central	459,763	356,614	87,411	17.1	71.8
Arkansas	35,035	26,217	8,338	14.6	65.2
Louisiana	73,902	42,356	30,013	16.8	69.7
Oklahoma	47,408	35,869	5,222	14.6	63.4
Texas	303,418	252,172	43,838	18.0	74.8
Mountain	234,663	205,303	9,514	17.6	74.0
Montana	11,692	9,861	78	14.5	63.5
Idaho	15,741	15,106	80	15.7	67.8
Wyoming	7,162	6,672	119	15.0	60.2
Colorado	53,367	48,316	3,162	16.2	63.8
New Mexico	27,015	21,958	705	17.9	75.9
Arizona	65,623	54,710	3,071	18.8	81.9
Utah	36,055	33,951	322	21.3	92.0
Nevada	18,008	14,729	1,977	17.1	71.2
Pacific	675,980	526,490	59,870	18.1	75.3
Washington	72,503	62,578	3,604	15.6	64.2
Oregon	40,052	36,752	1,091	14.5	60.0
California	533,148	415,319	53,639	18.8	78.5
Alaska	11,232	7,260	643	21.4	86.4
Hawaii	19,045	4,581	893	17.3	73.5

¹Includes races other than white and black.

Table 7. Live births by sex and sex ratio, by race of child: United States, 1970-88

Year	All races			White			All other					
			Males per 1,000 females			Males per 1,000 females	Total			Black		
	Male	Female		Male	Female		Male	Female	Males per 1,000 females	Male	Female	Males per 1,000 females
1988	2,002,424	1,907,086	1,050	1,562,675	1,483,487	1,053	439,749	423,599	1,038	341,441	330,535	1,033
1987	1,951,153	1,858,241	1,050	1,535,517	1,456,971	1,054	415,636	401,270	1,036	325,259	316,308	1,028
1986	1,924,868	1,831,679	1,051	1,523,914	1,446,525	1,053	400,954	385,154	1,041	315,788	305,433	1,034
1985	1,927,983	1,832,578	1,052	1,536,646	1,454,727	1,056	391,337	377,851	1,036	308,575	299,618	1,030
1984 ¹	1,879,490	1,789,651	1,050	1,500,326	1,423,176	1,054	379,164	366,475	1,031	300,951	291,794	1,031
1983 ¹	1,865,553	1,773,380	1,052	1,492,385	1,411,865	1,057	373,168	361,515	1,032	297,011	289,016	1,028
1982 ¹	1,885,676	1,794,861	1,051	1,509,704	1,432,350	1,054	375,972	362,511	1,037	301,721	291,520	1,033
1981 ¹	1,860,272	1,768,966	1,052	1,494,437	1,414,232	1,057	365,835	354,734	1,031	297,864	289,933	1,027
1980 ¹	1,852,616	1,759,642	1,053	1,490,140	1,408,592	1,058	362,476	351,050	1,033	299,033	290,583	1,029
1979 ¹	1,791,267	1,703,131	1,052	1,442,981	1,365,439	1,057	348,286	337,692	1,031	293,013	284,842	1,029
1978 ¹	1,709,394	1,623,885	1,053	1,378,222	1,302,894	1,058	331,172	320,991	1,032	279,598	271,942	1,028
1977 ¹	1,705,916	1,620,716	1,053	1,383,440	1,307,630	1,058	322,476	313,086	1,030	275,556	268,665	1,026
1976 ¹	1,624,436	1,543,352	1,053	1,319,717	1,247,897	1,058	304,719	295,455	1,031	260,661	253,818	1,027
1975 ¹	1,613,135	1,531,063	1,054	1,312,308	1,239,688	1,059	300,827	291,375	1,032	259,610	251,971	1,030
1974 ¹	1,622,114	1,537,844	1,055	1,325,019	1,250,773	1,059	297,095	287,071	1,035	257,277	249,885	1,030
1973 ¹	1,608,326	1,528,639	1,052	1,311,032	1,239,998	1,057	297,294	288,641	1,030	259,877	252,720	1,028
1972 ¹	1,669,927	1,588,484	1,051	1,364,578	1,290,980	1,057	305,349	297,504	1,026	268,842	262,487	1,024
1971 ²	1,822,910	1,733,060	1,052	1,499,958	1,419,788	1,056	322,952	313,272	1,031	286,430	278,530	1,028
1970 ²	1,915,378	1,816,008	1,055	1,590,140	1,501,124	1,059	325,238	314,884	1,033	290,508	281,854	1,031

¹Based on 100 percent of births in selected States and on a 50-percent sample of births in all other States; see Technical notes.²Based on a 50-percent sample of births.

Table 8. Live births by race of child and observed and seasonally adjusted birth and fertility rates, by month: United States, 1988

[Rates on an annual basis per 1,000 population for specified month. Birth rates based on the total population. Fertility rates based on women aged 15-44 years]

Month	Number				Observed		Seasonally adjusted ¹	
	All races	White	All other		Birth rate	Fertility rate	Birth rate	Fertility rate
			Total	Black				
Total	3,909,510	3,046,162	863,348	671,976	15.9	67.2	...	...
January	310,214	239,884	70,330	55,530	15.0	63.1	15.7	66.1
February	298,464	232,446	66,018	51,470	15.4	64.9	15.7	66.4
March	321,920	252,785	69,135	53,572	15.5	65.4	15.8	66.7
April	309,185	244,482	64,703	49,733	15.4	64.9	15.7	66.2
May	325,953	257,721	68,232	52,372	15.7	66.2	15.9	67.0
June	328,868	257,730	71,138	55,366	16.3	69.0	16.4	69.1
July	346,417	268,464	77,953	61,285	16.6	70.3	15.9	67.4
August	354,165	274,699	79,466	62,547	17.0	71.9	16.1	68.2
September	346,855	269,950	76,905	60,169	17.2	72.7	16.1	68.0
October	331,220	257,250	73,970	57,159	15.9	67.2	15.8	67.0
November	314,321	242,707	71,614	55,415	15.5	65.8	16.0	67.6
December	321,928	248,044	73,884	57,358	15.4	65.2	15.8	66.8

¹The method of seasonal adjustment, developed by the U.S. Bureau of the Census, is described in the X-11 Variant of the Census Method II Seasonal Adjustment Program, Technical Paper No. 15 (1967 revision).

Table 9. Average number of live births and index of occurrence, by day of week: United States, 1988

Day of week	Average number of births	Index of occurrence ¹
Total	10,682	100.0
Sunday	8,747	81.9
Monday	10,983	102.8
Tuesday	11,680	109.3
Wednesday	11,401	106.7
Thursday	11,374	106.5
Friday	11,403	106.7
Saturday	9,199	86.1

¹Index is the ratio of the average number of births on a given day of the week to the average daily number of births for the year, multiplied by 100.

Table 10. Live births by attendant, place of delivery, and race of child: United States, 1988

Place of delivery and race of child	All births	Attendant			
		Physician	Midwife	Other	Unspecified
All races¹					
Total	3,909,510	3,749,188	132,670	24,308	3,344
In hospital ²	3,872,428	3,740,213	115,886	13,668	2,661
Not in hospital	36,258	8,324	16,710	10,572	652
Not specified	824	651	74	68	31
White					
Total	3,046,162	2,927,245	98,667	17,824	2,426
In hospital ²	3,015,325	2,921,170	82,789	9,469	1,897
Not in hospital	30,177	5,539	15,815	8,320	503
Not specified	660	536	63	35	26
Black					
Total	671,976	641,519	24,666	4,997	794
In hospital ²	667,267	639,037	24,180	3,372	678
Not in hospital	4,579	2,392	480	1,595	112
Not specified	130	90	6	30	4

¹Includes races other than white and black.

²Includes births occurring en route to or on arrival at hospital.

Table 11. Live births by place of delivery, attendant, and race of child: United States, 1975 and 1980-88

Year and race of child	Total	In hospital ¹				Not in hospital ²			
		Physician	Midwife	Other	Unspecified	Physician	Midwife	Other	Unspecified
All races									
1988	3,909,510	3,740,213	115,886	13,668	2,661	8,975	16,784	10,640	683
1987	3,809,394	3,660,923	98,425	12,414	2,344	8,132	15,465	11,049	642
1986	3,756,547	3,617,281	89,810	9,311	3,266	9,400	15,398	11,408	673
1985	3,760,561	3,623,215	85,941	10,695	2,299	9,746	16,135	11,839	691
1984 ³	3,669,141	3,532,397	78,040	13,085	7,381	9,777	15,862	10,835	1,764
1983 ³	3,638,933	3,508,666	71,617	12,532	6,845	10,215	15,406	11,662	1,990
1982 ³	3,680,537	3,560,644	63,062	11,936	6,554	10,296	14,375	11,855	1,815
1981 ³	3,629,238	3,490,919	55,537	13,303	31,823	10,998	12,754	11,794	2,110
1980 ³	3,612,258	3,499,959	51,576	17,456	7,379	11,992	11,093	11,630	1,173
1975 ³	3,144,198	3,026,024	19,686	7,122	64,069	11,265	9,727	2,960	3,345
White									
1988	3,046,162	2,921,170	82,789	9,469	1,897	6,075	15,878	8,355	529
1987	2,992,488	2,880,824	70,521	9,218	1,823	6,201	14,678	8,741	482
1986	2,970,439	2,864,957	64,379	6,634	2,923	7,336	14,593	9,113	504
1985	2,991,373	2,887,795	61,051	7,286	1,967	7,795	15,268	9,664	547
1984 ³	2,923,502	2,819,888	55,682	9,042	5,865	7,785	14,946	8,933	1,361
1983 ³	2,904,250	2,806,960	49,651	8,477	5,400	8,132	14,391	9,748	1,491
1982 ³	2,942,054	2,853,427	42,684	8,197	5,116	7,982	13,262	9,982	1,404
1981 ³	2,908,669	2,804,868	37,019	9,405	25,505	8,560	11,577	10,047	1,688
1980 ³	2,898,732	2,815,382	33,730	13,691	5,548	9,495	9,919	10,021	946
1975 ³	2,551,996	2,465,957	10,076	5,342	52,392	7,818	5,082	2,585	2,744
All other									
1988	863,348	819,043	33,097	4,199	764	2,900	906	2,285	154
1987	816,906	780,099	27,904	3,196	521	1,931	787	2,308	160
1986	786,108	752,324	25,431	2,677	343	2,064	805	2,295	169
1985	769,188	735,420	24,890	3,409	332	1,951	867	2,175	144
1984 ³	745,639	712,509	22,358	4,043	1,516	1,992	916	1,902	403
1983 ³	734,683	701,706	21,966	4,055	1,445	2,083	1,015	1,914	499
1982 ³	738,483	707,217	20,378	3,739	1,438	2,314	1,113	1,873	411
1981 ³	720,569	686,051	18,518	3,898	6,318	2,438	1,177	1,747	422
1980 ³	713,526	684,577	17,846	3,765	1,831	2,497	1,174	1,609	227
1975 ³	592,202	560,067	9,610	1,780	11,677	3,447	4,645	375	601
Black ⁴									
1988	671,976	639,037	24,180	3,372	678	2,482	486	1,625	116
1987	641,567	615,029	19,907	2,369	431	1,605	452	1,642	132
1986	621,221	596,089	18,924	1,989	278	1,668	497	1,652	124
1985	608,193	582,768	19,097	2,306	241	1,566	573	1,535	107
1984 ³	592,745	568,092	17,304	2,547	927	1,638	616	1,391	230
1983 ³	586,027	561,304	17,400	2,377	922	1,602	742	1,384	296
1982 ³	592,641	568,943	16,162	2,147	1,024	1,868	877	1,364	256
1981 ³	587,797	561,821	15,104	2,113	4,267	1,976	991	1,262	263
1980 ³	589,616	567,568	14,229	2,090	1,321	2,062	1,001	1,170	175
1975 ³	511,581	484,416	7,707	1,311	9,595	3,161	4,602	281	508

¹Includes births occurring en route to or on arrival at hospital.²Includes births with place of delivery not stated.³Based on 100 percent of births in selected States and on a 50-percent sample of births in all other States; see Technical notes.⁴Included in All other.

Table 12. Percent distribution of live births by place of delivery and attendant, according to race of child: United States, 1975 and 1980-88

Year and race of child	Place of delivery			Place of delivery and attendant at birth						
	Total	In hospital ¹	Not in hospital ²	Total ³	In hospital ¹			Not in hospital ²		
					Physician	Midwife	Other	Physician	Midwife	Other
All races										
1988	100.0	99.1	0.9	100.0	95.8	3.0	0.3	0.2	0.4	0.3
1987	100.0	99.1	0.9	100.0	96.2	2.6	0.3	0.2	0.4	0.3
1986	100.0	99.0	1.0	100.0	96.4	2.4	0.2	0.3	0.4	0.3
1985	100.0	99.0	1.0	100.0	96.4	2.3	0.3	0.3	0.4	0.3
1984 ⁴	100.0	99.0	1.0	100.0	96.5	2.1	0.4	0.3	0.4	0.3
1983 ⁴	100.0	98.9	1.1	100.0	96.7	2.0	0.3	0.3	0.4	0.3
1982 ⁴	100.0	99.0	1.0	100.0	97.0	1.7	0.3	0.3	0.4	0.3
1981 ⁴	100.0	99.0	1.0	100.0	97.1	1.5	0.4	0.3	0.4	0.3
1980 ⁴	100.0	99.0	1.0	100.0	97.1	1.4	0.5	0.3	0.3	0.3
1975 ⁴	100.0	99.1	0.9	100.0	98.4	0.6	0.2	0.4	0.3	0.1
White										
1988	100.0	99.0	1.0	100.0	96.0	2.7	0.3	0.2	0.5	0.3
1987	100.0	99.0	1.0	100.0	96.3	2.4	0.3	0.2	0.5	0.3
1986	100.0	98.9	1.1	100.0	96.6	2.2	0.2	0.2	0.5	0.3
1985	100.0	98.9	1.1	100.0	96.6	2.0	0.2	0.3	0.5	0.3
1984 ⁴	100.0	98.9	1.1	100.0	96.7	1.9	0.3	0.3	0.5	0.3
1983 ⁴	100.0	98.8	1.2	100.0	96.9	1.7	0.3	0.3	0.5	0.3
1982 ⁴	100.0	98.9	1.1	100.0	97.2	1.5	0.3	0.3	0.5	0.3
1981 ⁴	100.0	98.9	1.1	100.0	97.3	1.3	0.3	0.3	0.4	0.3
1980 ⁴	100.0	99.0	1.0	100.0	97.3	1.2	0.5	0.3	0.3	0.3
1975 ⁴	100.0	99.3	0.7	100.0	98.8	0.4	0.2	0.3	0.2	0.1
All other										
1988	100.0	99.3	0.7	100.0	95.0	3.8	0.5	0.3	0.1	0.3
1987	100.0	99.4	0.6	100.0	95.6	3.4	0.4	0.2	0.1	0.3
1986	100.0	99.3	0.7	100.0	95.8	3.2	0.3	0.3	0.1	0.3
1985	100.0	99.3	0.7	100.0	95.7	3.2	0.4	0.3	0.1	0.3
1984 ⁴	100.0	99.3	0.7	100.0	95.8	3.0	0.5	0.3	0.1	0.3
1983 ⁴	100.0	99.3	0.7	100.0	95.8	3.0	0.6	0.3	0.1	0.3
1982 ⁴	100.0	99.2	0.8	100.0	96.0	2.8	0.5	0.3	0.2	0.3
1981 ⁴	100.0	99.2	0.8	100.0	96.1	2.6	0.5	0.3	0.2	0.2
1980 ⁴	100.0	99.2	0.8	100.0	96.2	2.5	0.5	0.4	0.2	0.2
1975 ⁴	100.0	98.5	1.5	100.0	96.6	1.7	0.3	0.6	0.8	0.1
Black⁵										
1988	100.0	99.3	0.7	100.0	95.2	3.6	0.5	0.4	0.1	0.2
1987	100.0	99.4	0.6	100.0	95.9	3.1	0.4	0.3	0.1	0.3
1986	100.0	99.4	0.6	100.0	96.0	3.0	0.3	0.3	0.1	0.3
1985	100.0	99.4	0.6	100.0	95.9	3.1	0.4	0.3	0.1	0.3
1984 ⁴	100.0	99.3	0.7	100.0	96.0	2.9	0.4	0.3	0.1	0.2
1983 ⁴	100.0	99.3	0.7	100.0	96.0	3.0	0.4	0.3	0.1	0.2
1982 ⁴	100.0	99.3	0.7	100.0	96.2	2.7	0.4	0.3	0.1	0.2
1981 ⁴	100.0	99.2	0.8	100.0	96.3	2.6	0.4	0.3	0.2	0.2
1980 ⁴	100.0	99.3	0.7	100.0	96.5	2.4	0.4	0.4	0.2	0.2
1975 ⁴	100.0	98.3	1.7	100.0	96.6	1.5	0.3	0.6	0.9	0.1

¹Includes births occurring en route to or on arrival at hospital.

²Includes births with place of delivery not stated.

³Excludes births with attendant not specified.

⁴Based on 100 percent of births in selected States and on a 50-percent sample of births in all other States; see Technical notes.

⁵Included in All other.

Table 13. Live births by age of father, age of mother, and race of child: United States, 1988

Age of mother and race of child	Total	Age of father										Not stated
		Under 15 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55 years and over	
All races ¹	3,909,510	376	110,685	617,124	1,055,417	903,800	431,375	144,706	40,728	12,639	7,293	585,367
Under 15 years	10,588	110	2,241	759	112	23	14	3	2	1	1	7,322
15-19 years	478,353	140	87,018	153,525	34,371	6,940	1,911	676	234	100	86	193,352
20-24 years	1,067,472	49	19,412	377,152	347,938	85,970	21,771	6,852	2,201	778	608	204,741
25-29 years	1,239,256	39	1,603	71,936	562,981	370,385	89,478	24,239	6,869	2,265	1,356	108,105
30-34 years	803,547	27	301	11,350	95,279	388,132	192,487	47,518	12,186	3,725	2,007	50,535
35-39 years	269,518	10	95	2,117	13,468	48,742	117,827	50,620	12,774	3,781	2,166	17,918
40-44 years	39,349	1	15	275	1,231	3,521	7,770	14,601	5,977	1,756	951	3,251
45-49 years	1,427	-	-	10	37	87	117	197	485	233	118	143
White	3,046,162	211	79,543	494,426	894,849	766,167	357,425	116,552	30,820	8,875	4,603	292,691
Under 15 years	4,073	26	1,031	498	69	18	12	2	2	1	-	2,414
15-19 years	315,471	83	61,959	119,525	27,089	5,347	1,471	505	153	76	51	99,212
20-24 years	804,622	40	14,979	304,969	289,436	68,662	16,798	5,149	1,622	525	337	102,105
25-29 years	1,010,748	35	1,244	58,366	486,334	312,965	72,158	19,180	5,072	1,490	783	53,121
30-34 years	661,414	20	236	9,136	80,020	335,541	160,696	38,120	9,195	2,571	1,284	24,595
35-39 years	217,754	6	79	1,701	10,879	40,720	99,843	41,304	9,728	2,735	1,416	9,343
40-44 years	31,068	1	15	223	992	2,851	6,358	12,142	4,687	1,308	666	1,825
45-49 years	1,012	-	-	8	30	63	89	150	361	169	66	76
Black	671,976	146	27,166	100,230	116,019	85,647	43,148	17,295	6,494	2,624	1,852	271,355
Under 15 years	6,182	80	1,137	208	32	3	1	1	-	-	1	4,719
15-19 years	146,326	49	22,046	28,588	5,604	1,222	339	128	67	20	29	88,234
20-24 years	220,301	7	3,648	59,238	44,427	11,950	3,496	1,272	450	204	213	95,396
25-29 years	167,684	2	279	10,359	53,991	35,894	10,639	3,518	1,363	593	429	50,617
30-34 years	93,765	5	49	1,534	10,202	31,392	17,829	5,763	2,027	850	498	23,616
35-39 years	32,534	3	7	270	1,626	4,778	10,049	5,265	1,836	687	485	7,528
40-44 years	4,981	-	-	33	132	393	780	1,325	701	243	175	1,199
45-49 years	203	-	-	-	5	15	15	23	50	27	22	46

¹ Includes races other than white and black.

Table 14. Birth rates by age of father and race of child: United States, 1970, 1975, and 1980-88

[Rates are live births per 1,000 men in specified group, enumerated as of April 1 for 1970 and 1980 and estimated as of July 1 for all other years. Figures for age of father not stated are distributed]

Year and race of child	Age of father									
	15-54 years ¹	15-19 years ²	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55 years and over
All races										
1988	55.9	20.0	85.5	111.1	90.9	49.4	20.0	7.1	2.6	0.4
1987	55.0	18.6	83.0	109.4	89.3	48.2	19.1	6.9	2.5	0.4
1986	54.9	18.1	82.3	109.1	88.7	46.5	18.4	6.7	2.5	0.4
1985	55.7	18.2	82.8	111.9	89.7	47.0	18.1	6.6	2.5	0.4
1984 ³	55.0	18.0	81.9	111.0	88.8	45.7	17.8	6.3	2.4	0.4
1983 ³	55.3	18.4	83.5	113.9	88.7	45.3	17.2	6.4	2.3	0.3
1982 ³	56.4	18.7	86.1	117.4	90.4	44.2	17.6	6.4	2.4	0.4
1981 ³	56.3	18.5	88.0	119.7	88.6	43.2	16.9	6.3	2.3	0.4
1980 ³	57.0	18.8	92.0	123.0	91.0	42.8	17.1	6.1	2.2	0.4
1975 ³	53.8	20.8	96.2	123.9	81.5	39.9	16.5	6.1	2.2	0.4
1970 ⁴	71.5	25.6	146.6	175.0	112.3	57.6	24.9	9.1	3.1	0.6
White										
1988	51.4	14.9	75.2	106.1	87.6	46.1	17.7	5.9	2.0	0.2
1987	50.9	13.9	73.9	105.0	86.3	44.9	17.0	5.7	1.9	0.2
1986	50.9	13.7	74.0	105.2	85.9	43.3	16.3	5.5	1.9	0.3
1985	51.9	14.0	75.1	108.2	87.0	43.7	16.0	5.4	1.9	0.3
1984 ³	51.2	13.9	74.4	107.2	85.8	42.6	15.7	5.2	1.8	0.3
1983 ³	51.5	14.4	76.4	110.0	85.4	42.0	15.1	5.2	1.8	0.2
1982 ³	52.5	14.8	79.2	113.3	86.7	40.9	15.4	5.2	1.8	0.3
1981 ³	52.3	14.9	80.7	115.2	84.7	39.7	14.7	5.1	1.8	0.3
1980 ³	52.9	15.2	84.0	118.4	86.9	39.2	14.7	5.0	1.8	0.3
1975 ³	49.8	17.1	86.6	119.5	78.6	36.8	14.8	5.2	1.7	0.3
1970 ⁴	67.1	21.0	135.3	170.9	109.3	54.5	22.9	7.9	2.6	0.4
All other										
1988	81.3	41.7	134.9	137.8	109.7	69.7	35.6	15.5	7.0	1.4
1987	78.6	39.0	127.8	133.7	106.0	68.5	34.3	14.9	6.6	1.3
1986	77.5	37.7	124.2	131.2	105.0	67.5	32.9	14.6	6.8	1.3
1985	77.9	37.4	122.8	132.9	105.7	69.1	33.1	14.4	6.7	1.3
1984 ³	77.4	36.9	121.7	132.7	106.8	67.3	32.6	14.1	6.4	1.3
1983 ³	78.2	36.9	122.2	136.6	109.4	68.6	31.6	14.7	6.2	1.2
1982 ³	80.1	37.3	123.5	141.9	112.9	67.6	32.6	14.7	6.6	1.3
1981 ³	81.2	36.3	129.7	147.4	113.9	68.0	32.3	14.3	6.2	1.3
1980 ³	83.6	37.5	139.0	152.3	118.9	68.6	33.7	14.3	6.2	1.3
1975 ³	81.8	42.4	158.5	156.4	102.5	63.5	29.4	13.1	6.0	1.4
1970 ⁴	104.5	55.2	224.9	202.6	135.1	82.4	42.5	20.4	9.0	2.7
Black⁵										
1988	82.0	48.1	149.2	138.5	99.0	60.2	32.6	14.7	6.8	1.3
1987	79.5	44.6	140.4	134.6	96.7	60.0	31.9	14.2	6.5	1.3
1986	78.3	42.8	135.2	132.2	96.9	59.8	30.6	14.0	6.7	1.2
1985	78.2	42.0	132.7	133.3	96.9	61.1	30.8	13.7	6.5	1.2
1984 ³	77.6	41.0	130.6	133.0	98.2	59.8	30.4	13.6	6.1	1.2
1983 ³	78.0	40.8	131.3	136.3	99.9	61.2	29.5	13.9	5.9	1.2
1982 ³	79.8	40.7	129.4	141.8	104.0	61.2	30.5	14.1	6.3	1.2
1981 ³	81.2	39.3	136.6	148.1	105.2	61.9	30.3	13.6	6.0	1.2
1980 ³	83.8	40.4	146.6	154.2	110.8	62.8	31.5	13.8	6.0	1.2
1975 ³	82.1	45.0	167.3	156.8	95.5	57.7	28.5	12.6	5.9	1.1
1970 ⁴	107.4	58.7	243.7	209.6	132.6	80.9	41.9	20.6	8.8	2.1

¹Rates computed by relating total births, regardless of age of father, to men aged 15-54 years.

²Rates computed by relating births of fathers under 20 years of age to men aged 15-19 years.

³Based on 100 percent of births in selected States and on a 50-percent sample of births in all other States; see Technical notes.

⁴Based on a 50-percent sample of births.

⁵Included in All other.

Table 15. Number and percent low birth weight and live births by birth weight, by age of mother and race of child: United States, 1988

Age of mother and race of child	Birth weight ²														
	Low birth weight ¹		Total	Less than 500	500-999	1,000-1,499	1,500-1,999	2,000-2,499	2,500-2,999	3,000-3,499	3,500-3,999	4,000-4,499	4,500-4,999	5,000 grams or more	Not stated
	Number	Percent		grams	grams	grams	grams	grams	grams	grams	grams	grams	grams	grams	
All races															
All ages	270,681	6.9	3,909,510	5,042	18,720	24,818	51,535	170,566	624,865	1,429,032	1,149,966	357,377	64,993	8,362	4,234
Under 15 years	1,433	13.6	10,588	40	139	183	284	787	2,582	4,203	1,937	362	39	4	28
15-19 years	44,231	9.3	478,353	822	3,308	4,281	8,312	27,508	98,191	187,568	115,948	27,462	3,898	434	621
15 years	3,044	11.9	25,605	57	272	310	611	1,794	5,866	10,061	5,350	1,106	125	14	39
16 years	5,726	10.4	55,150	119	482	585	1,087	3,453	12,251	21,759	12,339	2,622	335	37	81
17 years	9,393	9.8	95,869	161	739	884	1,750	5,859	20,209	37,916	22,417	5,079	643	88	124
18 years	11,905	8.9	133,370	222	843	1,188	2,217	7,435	27,379	52,408	32,498	7,758	1,121	114	187
19 years	14,163	8.4	168,359	263	972	1,314	2,647	8,967	32,486	65,424	43,344	10,897	1,674	181	190
20-24 years	76,442	7.2	1,067,472	1,379	5,053	6,884	14,218	48,908	184,306	404,612	299,724	85,554	14,101	1,630	1,103
25-29 years	75,953	6.1	1,239,256	1,402	5,096	6,731	14,323	48,401	184,295	449,301	382,583	121,160	22,016	2,723	1,225
30-34 years	50,243	6.3	803,547	955	3,621	4,525	9,879	31,263	111,533	279,446	254,173	87,654	17,269	2,350	879
35-39 years	19,025	7.1	269,518	379	1,303	1,892	3,843	11,608	37,992	90,569	83,453	30,538	6,612	1,024	305
40-44 years	3,214	8.2	39,349	64	189	310	657	1,994	5,729	12,881	11,735	4,507	1,023	190	70
45-49 years	140	9.8	1,427	1	11	12	19	97	237	452	413	140	35	7	3
White															
All ages	171,775	5.6	3,046,162	2,677	10,591	14,948	32,399	111,160	431,097	1,097,349	964,376	313,455	57,853	7,187	3,070
Under 15 years	445	11.0	4,073	12	44	56	100	233	781	1,658	940	212	27	-	10
15-19 years	23,695	7.5	315,471	353	1,645	2,178	4,413	15,106	56,854	122,882	86,055	22,042	3,242	347	354
15 years	1,257	9.8	12,870	18	121	119	267	732	2,491	5,009	3,244	754	96	6	13
16 years	2,747	8.5	32,500	38	209	282	518	1,700	6,259	12,778	8,429	1,953	259	29	46
17 years	4,936	8.0	61,537	74	356	439	896	3,171	11,441	24,253	16,260	4,003	511	68	65
18 years	6,587	7.3	89,928	96	436	635	1,210	4,210	16,379	35,113	24,427	6,282	935	88	117
19 years	8,168	6.9	118,636	127	523	703	1,522	5,293	20,284	45,729	33,695	9,050	1,441	156	113
20-24 years	46,776	5.8	804,622	688	2,656	3,973	8,544	30,915	123,040	301,946	244,832	73,530	12,383	1,361	754
25-29 years	50,814	5.0	1,010,748	781	3,022	4,277	9,534	33,200	135,242	362,055	331,105	108,337	19,884	2,376	935
30-34 years	34,559	5.2	661,414	552	2,248	3,001	6,720	22,038	82,874	226,631	220,467	78,579	15,557	2,047	700
35-39 years	13,175	6.1	217,754	247	835	1,241	2,627	8,225	28,005	71,928	70,900	26,758	5,848	884	256
40-44 years	2,217	7.1	31,068	44	134	212	451	1,376	4,143	9,940	9,771	3,887	885	167	58
45-49 years	94	9.3	1,012	-	7	10	10	67	158	309	306	110	27	5	3
All other															
All ages	98,906	11.5	863,348	2,365	8,129	9,870	19,136	59,406	193,768	331,683	185,590	43,922	7,140	1,175	1,164
Under 15 years	988	15.2	6,515	28	95	127	184	554	1,801	2,545	997	150	12	4	18
15-19 years	20,536	12.6	162,882	469	1,663	2,103	3,899	12,402	41,337	64,686	29,893	5,420	656	87	267
15 years	1,787	14.1	12,735	39	151	191	344	1,062	3,375	5,052	1,106	352	29	8	26
16 years	2,979	13.2	22,650	81	273	303	569	1,753	5,992	8,981	3,910	669	76	8	35
17 years	4,457	13.0	34,332	87	383	445	854	2,688	8,768	13,663	6,157	1,076	132	20	59
18 years	5,318	12.3	43,442	126	407	553	1,007	3,225	11,000	17,295	8,071	1,476	186	26	70
19 years	5,995	12.1	49,723	136	449	611	1,125	3,674	12,202	19,695	9,649	1,847	233	25	77
20-24 years	29,666	11.3	262,850	691	2,397	2,911	5,674	17,993	61,266	102,666	54,892	12,024	1,718	269	349
25-29 years	25,139	11.0	228,508	621	2,074	2,454	4,789	15,201	49,053	87,246	51,478	12,823	2,132	347	290
30-34 years	15,684	11.0	142,133	403	1,373	1,524	3,159	9,225	28,659	52,815	33,706	9,075	1,712	303	179
35-39 years	5,850	11.3	51,764	132	468	651	1,216	3,383	9,987	18,641	12,553	3,780	764	140	49
40-44 years	997	12.1	8,281	20	55	98	206	618	1,586	2,941	1,964	620	138	23	12
45-49 years	46	11.1	415	1	4	2	9	30	79	143	107	30	8	2	-

Black³

All ages	87,009	13.0	671,976	2,235	7,515	8,898	17,024	51,337	156,916	253,963	136,240	31,093	4,935	844	976
Under 15 years	955	15.5	6,182	27	92	126	176	534	1,723	2,416	921	136	11	3	17
15-19 years	19,254	13.2	146,326	456	1,592	1,976	3,680	11,550	37,917	58,052	25,838	4,449	498	74	244
15 years	1,716	14.4	11,914	39	147	177	334	1,019	3,213	4,704	1,917	308	22	8	26
16 years	2,828	13.6	20,814	79	264	288	540	1,657	5,589	8,246	3,479	573	60	6	33
17 years	4,183	13.5	31,105	86	366	419	815	2,497	8,126	12,366	5,370	891	102	19	48
18 years	4,949	12.8	38,702	121	387	517	937	2,987	10,035	15,407	6,896	1,191	136	22	66
19 years	5,578	12.8	43,791	131	428	575	1,054	3,390	10,954	17,329	8,176	1,486	178	19	71
20-24 years	26,959	12.3	220,301	670	2,244	2,715	5,213	16,117	52,719	85,487	44,108	9,238	1,277	209	304
25-29 years	21,754	13.0	167,684	578	1,933	2,185	4,250	12,808	37,429	62,155	35,576	8,838	1,464	244	224
30-34 years	12,766	13.6	93,765	373	1,212	1,294	2,585	7,302	19,598	33,048	21,146	5,754	1,101	208	144
35-39 years	4,564	14.0	32,534	114	392	532	964	2,562	6,525	11,045	7,471	2,315	488	91	35
40-44 years	726	14.6	4,981	16	47	69	149	445	963	1,695	1,139	348	89	13	8
45-49 years	31	15.3	203	1	3	1	7	19	42	65	41	15	7	2	-

¹Less than 2,500 grams.

²Equivalents of the gram weight in terms of pounds and ounces are as follows:

- Less than 500 grams = 1 pound 1 ounce or less
- 500-999 grams = 1 pound 2 ounces-2 pounds 3 ounces
- 1,000-1,499 grams = 2 pounds 4 ounces-3 pounds 4 ounces
- 1,500-1,999 grams = 3 pounds 5 ounces-4 pounds 6 ounces
- 2,000-2,499 grams = 4 pounds 7 ounces-5 pounds 8 ounces
- 2,500-2,999 grams = 5 pounds 9 ounces-6 pounds 9 ounces
- 3,000-3,499 grams = 6 pounds 10 ounces-7 pounds 11 ounces
- 3,500-3,999 grams = 7 pounds 12 ounces-8 pounds 13 ounces
- 4,000-4,499 grams = 8 pounds 14 ounces-9 pounds 14 ounces
- 4,500-4,999 grams = 9 pounds 15 ounces-11 pounds 0 ounces
- 5,000 grams or more = 11 pounds 1 ounce or more

³Included In All other.

Table 16. Number and percent of births of low birth weight and number and ratio of births to unmarried women, by race of child: United States and each State, 1988

[By place of residence]

State	Low birth weight ¹						Births to unmarried women					
	Number			Percent			Number			Ratio per 1,000 live births		
	All races ²	White	Black	All races ²	White	Black	All races ²	White	Black	All races ²	White	Black
United States	270,681	171,775	87,009	6.9	5.6	13.0	1,005,299	539,696	426,665	257.1	177.2	634.9
Alabama	4,866	2,331	2,496	8.0	6.0	11.9	16,934	4,150	12,744	278.8	105.8	607.2
Alaska	558	334	59	5.0	4.6	9.2	2,627	1,016	183	233.9	139.9	284.6
Arizona	4,088	3,271	381	6.2	6.0	12.4	18,815	13,302	1,670	286.7	243.1	543.8
Arkansas	2,870	1,747	1,085	8.2	6.7	13.0	9,273	3,745	5,476	264.7	142.8	656.8
California ³	32,001	21,346	6,793	6.0	5.1	12.7	152,607	111,706	31,804	286.2	269.0	592.9
Colorado	4,186	3,612	407	7.8	7.5	12.9	10,431	8,691	1,436	195.5	179.9	454.1
Connecticut ³	3,238	2,306	860	6.7	5.7	13.2	11,460	6,933	4,297	238.4	170.9	659.4
Delaware	765	438	313	7.4	5.6	13.0	2,819	1,213	1,599	270.9	155.0	662.4
District of Columbia	1,507	87	1,378	14.3	5.3	16.9	6,507	227	5,973	617.4	136.7	731.5
Florida	14,119	8,167	5,754	7.7	6.0	12.9	52,867	23,614	28,850	287.1	173.0	645.3
Georgia	8,858	4,022	4,729	8.4	6.1	12.5	31,348	7,926	23,283	296.0	119.3	615.1
Hawaii	1,311	265	79	6.9	5.8	8.8	4,222	592	137	221.7	129.2	153.4
Idaho	808	769	5	5.1	5.1	6.3	2,216	2,062	18	140.8	136.5	225.0
Illinois	13,793	7,541	5,911	7.5	5.5	14.1	54,436	22,421	31,561	294.5	163.0	752.5
Indiana	5,365	4,162	1,166	6.6	5.8	12.4	18,543	11,907	6,532	227.1	167.0	691.1
Iowa	2,072	1,886	135	5.4	5.2	11.7	6,736	5,798	800	176.7	159.7	691.4
Kansas	2,379	1,861	441	6.1	5.5	12.2	7,025	4,714	2,084	181.1	138.9	574.6
Kentucky	3,421	2,791	603	6.7	6.2	11.8	11,206	7,855	3,315	219.5	172.6	647.5
Louisiana	6,504	2,520	3,881	8.8	6.0	12.9	24,752	5,470	19,074	334.9	129.1	635.5
Maine	832	808	9	4.9	4.8	7.5	3,489	3,404	24	203.2	202.8	200.0
Maryland ³	6,136	2,855	3,073	8.1	5.8	12.9	24,716	8,589	15,469	326.2	175.6	650.0
Massachusetts	5,286	4,063	960	6.0	5.4	11.2	19,559	13,928	4,850	221.8	183.6	565.0
Michigan ³	10,192	6,353	3,692	7.3	5.7	14.2	30,195	13,804	16,166	216.1	124.3	620.3
Minnesota	3,322	2,765	324	5.0	4.6	11.7	12,235	8,977	1,883	183.3	148.7	679.8
Mississippi	3,668	1,309	2,334	8.7	6.0	11.8	15,824	2,483	13,195	376.1	114.4	664.7
Missouri	5,221	3,520	1,631	6.8	5.6	12.9	19,124	9,926	9,079	250.0	158.3	715.4
Montana	696	577	11	6.0	5.9	14.3	2,430	1,443	29	207.8	146.3	371.8
Nebraska	1,319	1,108	179	5.5	5.1	12.5	4,333	3,053	977	181.2	140.1	682.7
Nevada ³	1,358	983	287	7.5	6.7	14.5	3,432	2,184	1,089	190.6	148.3	550.8
New Hampshire	837	809	11	4.8	4.8	7.4	2,503	2,357	41	144.1	140.0	275.2
New Jersey	8,285	4,866	3,159	7.0	5.4	13.3	28,580	13,177	15,073	242.7	147.0	634.4
New Mexico	1,950	1,615	78	7.2	7.4	11.1	8,711	5,937	324	322.5	270.4	459.6
New York ³	21,774	12,086	8,908	7.8	5.9	14.0	84,381	42,330	40,605	300.7	207.2	638.9
North Carolina	7,823	4,009	3,585	8.0	6.1	12.4	25,622	7,682	17,193	262.6	116.5	595.3
North Dakota	485	411	13	4.8	4.6	9.5	1,578	1,038	23	156.2	115.5	167.9
Ohio ³	11,017	7,582	3,320	6.9	5.7	13.0	42,448	23,981	18,222	264.4	180.1	714.5
Oklahoma	3,102	2,135	613	6.5	6.0	11.8	10,600	5,777	3,133	223.6	161.1	600.0
Oregon	2,101	1,844	128	5.2	5.0	11.7	9,435	8,238	679	235.6	224.2	622.4
Pennsylvania	11,417	7,551	3,711	6.9	5.5	14.4	43,919	24,075	19,473	265.1	175.7	752.4
Rhode Island	854	702	108	6.0	5.6	9.3	3,262	2,427	683	229.3	193.8	587.3
South Carolina	4,935	2,095	2,811	9.0	6.3	13.1	16,722	4,088	12,575	303.4	123.5	584.9
South Dakota	523	425	7	4.7	4.6	6.3	2,334	1,212	23	208.5	132.1	205.4
Tennessee	5,556	3,359	2,154	7.9	6.3	12.7	19,511	7,823	11,621	275.9	147.4	682.5
Texas ³	20,727	14,910	5,337	6.8	5.9	12.2	59,820	36,562	22,792	197.2	145.0	519.9
Utah	2,048	1,885	38	5.7	5.6	11.8	4,221	3,668	152	117.1	108.0	472.0
Vermont	406	393	8	5.0	4.9	23.5	1,510	1,481	13	186.2	185.1	382.4
Virginia	6,549	3,657	2,691	7.0	5.4	11.9	22,126	8,883	12,986	237.6	131.7	573.2
Washington	3,804	3,012	388	5.3	4.8	10.8	16,150	12,573	1,742	222.7	200.9	483.4
West Virginia	1,389	1,283	101	6.4	6.2	10.9	4,948	4,364	576	226.5	209.8	622.0
Wisconsin	3,856	2,870	857	5.4	4.7	12.9	15,528	9,817	5,095	219.3	159.1	765.4
Wyoming	504	479	7	7.0	7.2	5.9	1,229	1,073	44	171.6	160.8	369.7

¹Less than 2,500 grams (5 pounds 8 ounces).²Includes races other than white and black.³Marital status of mother is inferred; see Technical notes.

Table 17. Live births by plurality of birth, age of mother, and race of child: United States, 1988

Age of mother	All live births			Single live births			Live births in twin deliveries			Live births in triplet and other plural deliveries		
	All races ¹	White	Black	All races ¹	White	Black	All races ¹	White	Black	All races ¹	White	Black
All ages	3,909,510	3,046,162	671,976	3,821,810	2,979,007	654,623	85,315	65,136	17,052	2,385	2,019	301
Under 15 years.	10,588	4,073	6,182	10,444	4,014	6,101	142	57	81	2	2	-
15-19 years.	478,353	315,471	146,326	471,707	311,486	143,880	6,600	3,962	2,429	46	23	17
15 years.	25,605	12,870	11,914	25,366	12,738	11,817	236	132	94	3	-	3
16 years.	55,150	32,500	20,814	54,564	32,181	20,565	586	319	249	-	-	-
17 years.	95,869	61,537	31,105	94,605	60,828	30,597	1,261	709	505	3	-	3
18 years.	133,370	89,928	38,702	131,471	88,761	38,025	1,890	1,163	672	9	4	5
19 years.	168,359	118,636	43,791	165,701	116,978	42,876	2,627	1,639	909	31	19	6
20-24 years.	1,067,472	804,622	220,301	1,046,858	790,191	214,795	20,258	14,171	5,420	356	260	86
25-29 years.	1,239,256	1,010,748	167,684	1,210,238	987,723	162,641	28,156	22,292	4,946	862	733	97
30-34 years.	803,547	661,414	93,765	781,419	643,306	90,678	21,388	17,446	3,015	740	662	72
35-39 years.	269,518	217,754	32,534	261,302	210,966	31,465	7,870	6,482	1,040	346	306	29
40-44 years.	39,349	31,068	4,981	38,434	30,319	4,864	882	716	117	33	33	-
45-49 years.	1,427	1,012	203	1,408	1,002	199	19	10	4	-	-	-

¹Includes races other than white and black.

Table 18. Numbers, rates, and ratios of births to unmarried women, by age of mother and race of child: United States, 1988

Age of mother	Number				Rate per 1,000 unmarried women in specified group				Ratio per 1,000 live births			
	All races	White	All other		All races	White	All other		All races	White	All other	
			Total	Black			Total	Black			Total	Black
All ages	1,005,299	539,696	465,603	426,665	¹ 38.6	¹ 26.6	¹ 81.8	¹ 88.9	257.1	177.2	539.3	634.9
Under 15 years	9,907	3,522	6,385	6,111	---	---	---	---	935.7	864.7	980.0	988.5
15-19 years	312,499	168,641	143,858	133,419	36.8	24.8	85.9	98.3	653.3	534.6	883.2	911.8
15 years	22,456	10,105	12,351	11,702	} 26.5	} 17.1	} 64.1	} 74.1	877.0	785.2	969.8	982.2
16 years	44,101	22,535	21,566	20,168					799.7	693.4	952.1	969.0
17 years	69,580	37,861	31,719	29,429					725.8	615.3	923.9	946.1
18 years	85,659	47,577	38,082	35,100					52.7	36.4	120.3	136.1	642.3	529.1	876.6	906.9
19 years	90,703	50,563	40,140	37,020					538.7	426.2	807.3	845.4
20-24 years	350,905	186,598	164,307	151,308	56.7	38.3	124.3	138.2	328.7	231.9	625.1	686.8
25-29 years	196,365	105,218	91,147	82,825	48.1	33.8	94.6	99.2	158.5	104.1	398.9	493.9
30-34 years	94,874	51,596	43,278	38,724	31.7	22.9	57.9	58.7	118.1	78.0	304.5	413.0
35-39 years	34,408	20,109	14,299	12,358	14.9	11.5	25.4	25.3	127.7	92.3	276.2	379.8
40 years and over	6,341	4,012	2,329	1,920	² 3.2	² 2.6	² 5.5	² 5.3	155.5	125.1	267.8	370.4

¹Rates computed by relating total births to unmarried mothers, regardless of age of mother, to unmarried women aged 15-44 years.

²Rates computed by relating births to unmarried mothers aged 40 years and over to unmarried women aged 40-44 years.

NOTE: For 42 States and the District of Columbia, marital status of mother is reported on the birth certificate; for 8 States, mother's marital status is inferred; see Technical notes.

Table 19. Birth rates for unmarried women by age of mother and race of child: United States, 1970-88

[Rates are live births to unmarried women per 1,000 unmarried women in specified group, estimated as of July 1]

Year and race of child	Age of mother								
	15-44 years ¹	15-19 years			20-24 years	25-29 years	30-34 years	35-39 years	40-44 years ²
		Total	15-17 years	18-19 years					
All races									
Reported and/or inferred: ³									
1988	38.6	36.8	26.5	52.7	56.7	48.1	31.7	14.9	3.2
1987	36.1	34.1	24.5	49.9	53.1	44.3	29.3	13.5	2.9
1986	34.3	32.6	22.9	48.9	49.7	42.0	26.9	12.2	2.7
1985	32.8	31.6	22.5	46.6	46.8	39.8	25.0	11.6	2.5
1984 ⁴	31.0	30.2	21.9	43.0	43.2	37.0	23.2	10.9	2.5
1983 ⁴	30.4	29.7	22.1	41.0	42.0	35.6	22.3	10.3	2.5
1982 ⁴	30.0	28.9	21.5	40.2	41.4	35.1	21.9	10.0	2.7
1981 ⁴	29.6	28.2	20.9	39.9	40.9	34.7	20.8	9.8	2.6
1980 ⁴	29.4	27.6	20.6	39.0	40.9	34.0	21.1	9.7	2.6
Estimated: ⁵									
1980 ⁴	28.4	27.5	20.7	38.7	39.7	31.4	18.5	8.4	2.3
1979 ⁴	27.2	26.4	19.9	37.2	37.7	29.9	17.7	8.4	2.3
1978 ⁴	25.7	24.9	19.1	35.1	35.3	28.5	16.9	8.2	2.2
1977 ⁴	25.6	25.1	19.8	34.6	34.0	27.7	16.9	8.4	2.4
1976 ⁴	24.3	23.7	19.0	32.1	31.7	26.8	17.5	9.0	2.5
1975 ⁴	24.5	23.9	19.3	32.5	31.2	27.5	17.9	9.1	2.6
1974 ⁴	23.9	23.0	18.8	31.2	30.5	27.9	18.4	10.0	2.6
1973 ⁴	24.3	22.7	18.7	30.4	31.5	29.6	20.3	10.8	3.0
1972 ⁴	24.8	22.8	18.5	30.9	33.2	30.8	22.6	12.0	3.1
1971 ⁶	25.5	22.3	17.5	31.7	35.5	34.5	25.2	13.3	3.5
1970 ⁶	26.4	22.4	17.1	32.9	38.4	37.0	27.1	13.6	3.5
White									
Reported and/or inferred: ³									
1988	26.6	24.8	17.1	36.4	38.3	33.8	22.9	11.5	2.6
1987	24.6	22.8	15.8	34.2	35.8	30.7	21.2	10.3	2.3
1986	23.2	21.5	14.6	33.2	33.5	29.2	19.2	9.3	2.1
1985	21.8	20.5	14.2	30.9	30.9	27.3	17.5	8.6	1.9
1984 ⁴	20.1	19.0	13.5	27.6	27.8	24.5	16.1	8.0	1.9
1983 ⁴	19.3	18.5	13.5	26.1	26.4	22.9	15.3	7.5	1.9
1982 ⁴	18.8	17.7	12.9	25.1	25.7	22.2	14.7	7.1	2.0
1981 ⁴	18.2	17.1	12.4	24.6	24.9	21.6	13.6	6.9	1.8
1980 ⁴	17.6	16.2	11.8	23.6	24.4	20.7	13.6	6.8	1.8
Estimated: ⁵									
1980 ⁴	16.2	15.9	11.7	22.8	22.4	17.3	10.5	5.3	1.4
1979 ⁴	14.9	14.6	10.8	21.0	20.3	15.9	10.0	5.1	1.4
1978 ⁴	13.7	13.6	10.3	19.3	18.1	14.8	9.4	4.8	1.3
1977 ⁴	13.5	13.4	10.5	18.7	17.4	14.4	9.3	4.9	1.4
1976 ⁴	12.6	12.3	9.7	16.9	15.8	14.0	10.1	5.5	1.4
1975 ⁴	12.4	12.0	9.6	16.5	15.5	14.8	9.8	5.4	1.5
1974 ⁴	11.7	11.0	8.8	15.3	15.0	14.7	9.5	5.5	1.5
1973 ⁴	11.8	10.6	8.4	14.9	15.5	15.9	10.6	5.9	1.7
1972 ⁴	11.9	10.4	8.0	15.1	16.6	16.5	12.1	6.5	1.6
1971 ⁶	12.5	10.3	7.4	15.8	18.7	18.5	13.2	7.2	1.9
1970 ⁶	13.9	10.9	7.5	17.6	22.5	21.1	14.2	7.6	2.0
All other									
Reported and/or inferred: ³									
1988	81.8	85.9	64.1	120.3	124.3	94.6	57.9	25.4	5.5
1987	78.3	81.6	61.3	114.1	116.6	89.2	54.2	23.9	5.4
1986	74.8	79.7	59.1	112.3	109.5	82.3	50.8	21.6	4.9
1985	73.2	79.4	59.1	109.9	105.7	77.9	48.8	21.4	4.7
1984 ⁴	71.4	78.3	59.3	106.1	101.3	75.8	45.0	20.5	4.7
1983 ⁴	72.3	78.3	60.2	104.6	101.1	77.3	44.7	20.1	4.9
1982 ⁴	73.9	79.2	60.7	107.0	102.1	78.9	44.4	20.0	5.4
1981 ⁴	75.4	79.2	60.3	109.0	104.5	80.1	45.6	19.7	5.7
1980 ⁴	77.2	81.7	63.1	111.6	106.6	79.1	46.9	19.2	5.6

See footnotes at end of table.

Table 19. Birth rates for unmarried women by age of mother and race of child: United States, 1970-88—Con.

[Rates are live births to unmarried women per 1,000 unmarried women in specified group, estimated as of July 1]

Year and race of child	Age of mother								
	15-44 years ¹	15-19 years			20-24 years	25-29 years	30-34 years	35-39 years	40-44 years ²
		Total	15-17 years	18-19 years					
All other—Con.									
Estimated: ⁵									
1980 ⁴	78.0	83.0	64.0	113.4	108.2	79.1	46.2	18.5	5.3
1979 ⁴	78.2	83.9	64.8	115.3	107.1	77.7	44.8	19.1	5.7
1978 ⁴	76.5	81.2	63.2	111.6	104.9	76.4	43.6	18.2	5.6
1977 ⁴	77.4	84.0	67.2	112.7	103.1	74.4	43.7	18.5	6.6
1976 ⁴	76.4	82.5	67.5	108.9	101.1	74.0	43.4	18.7	6.9
1975 ⁴	79.0	86.3	70.7	114.3	102.1	73.2	47.9	20.0	6.9
1974 ⁴	80.3	87.3	73.2	113.4	103.0	77.0	50.9	23.2	6.6
1973 ⁴	83.2	88.5	75.6	112.8	107.8	81.0	55.8	26.2	7.2
1972 ⁴	86.2	91.8	77.6	119.3	112.4	83.3	55.7	29.0	8.2
1971 ⁶	90.2	92.0	75.4	125.4	120.6	92.6	65.3	32.2	10.4
1970 ⁶	89.9	90.8	73.3	126.5	121.0	93.8	69.8	32.0	10.7
Black ⁷									
Reported and/or inferred: ³									
1988	88.9	98.3	74.1	136.1	138.2	99.2	58.7	25.3	5.3
1987	84.7	92.6	70.4	127.5	129.9	93.6	54.2	23.5	5.1
1986	80.9	89.9	67.4	125.0	121.4	86.7	51.1	21.6	4.7
1985	78.8	88.8	67.0	121.1	116.1	81.4	48.8	21.3	4.5
1984 ⁴	76.8	87.1	66.8	116.2	110.7	80.0	45.0	20.3	4.5
1983 ⁴	77.7	86.4	67.1	114.0	110.0	82.0	45.3	20.3	4.9
1982 ⁴	79.6	87.0	67.6	115.8	110.2	85.5	45.8	20.1	5.4
1981 ⁴	81.4	86.8	66.9	117.6	112.5	86.4	47.2	20.4	5.8
1980 ⁴	82.9	89.2	69.6	120.2	115.1	83.9	48.2	19.6	5.6
Estimated: ⁵									
1980 ⁴	83.2	90.3	70.6	121.8	116.0	82.9	47.0	18.5	5.5
1979 ⁴	83.0	91.0	71.0	123.3	114.1	80.0	44.8	19.3	5.9
1978 ⁴	81.1	87.9	68.8	119.6	111.4	79.6	43.9	18.5	6.2
1977 ⁴	82.6	90.9	73.0	121.7	110.1	78.6	45.7	19.0	6.6
1976 ⁴	81.6	89.7	73.5	117.9	107.2	78.0	45.0	19.2	7.0
1975 ⁴	84.2	93.5	76.8	123.8	108.0	75.7	50.0	20.5	7.2
1974 ⁴	85.5	93.8	78.6	122.2	109.8	80.3	51.8	24.3	6.7
1973 ⁴	88.6	94.9	81.2	120.5	116.0	84.5	57.8	27.6	7.7
1972 ⁴	91.6	98.2	82.8	128.2	121.2	88.3	57.4	30.4	8.5
1971 ⁶	96.1	98.6	80.7	135.2	130.6	99.6	68.6	32.7	10.1
1970 ⁶	95.5	96.9	77.9	136.4	131.5	100.9	71.8	32.9	10.4

¹Rates computed by relating total births to unmarried mothers, regardless of age of mother, to unmarried women aged 15-44 years.
²Rates computed by relating births to unmarried mothers aged 40 years and over to unmarried women aged 40-44 years.
³Data for States in which marital status was not reported have been inferred and included with data from the remaining States; see Technical notes.
⁴Based on 100 percent of births in selected States and on a 50-percent sample of births in all other States; see Technical notes.
⁵Births to unmarried women are estimated for the United States from data for registration areas in which marital status of mother was reported; see Technical notes.
⁶Based on a 50-percent sample of births.
⁷Included in All other.

Table 20. Live births by interval since last live birth, live-birth order, and race of child: Total of 49 reporting States and the District of Columbia, 1988

[Refers only to second and higher order births. Live-birth order refers to number of children born alive to mother]

Interval since last live birth and race of child	Total, second and higher order births ¹	Live-birth order						
		2	3	4	5	6	7	8 and over
All races²								
All intervals	2,107,471	1,173,626	578,830	216,130	77,966	32,001	14,267	14651
0 months (plural deliveries)	35,847	13,204	12,006	6,276	2,514	1,015	430	402
1-11 months.	32,384	14,644	9,049	4,755	2,133	954	401	448
12-17 months.	219,669	107,272	60,684	28,968	11,861	5,423	2,549	2,912
18-23 months.	270,835	147,343	71,500	30,281	11,611	4,956	2,407	2,737
24-35 months.	463,978	273,012	117,152	44,728	15,828	6,814	3,085	3,359
36-47 months.	309,195	184,995	82,062	26,757	8,948	3,548	1,496	1,389
48-59 months.	195,364	111,114	56,603	17,851	5,884	2,205	916	791
60-71 months.	131,768	72,531	39,964	12,535	4,197	1,479	586	476
72 months or more.	322,060	174,972	99,191	31,712	10,286	3,481	1,391	1,027
Not stated	126,371	74,539	30,619	12,267	4,704	2,126	1,006	1,110
White								
All intervals	1,618,221	932,602	442,979	154,300	51,126	19,853	8,568	8,793
0 months (plural deliveries)	27,357	10,567	9,325	4,702	1,658	608	266	231
1-11 months.	18,959	9,723	5,265	2,390	932	361	143	145
12-17 months.	153,010	80,545	42,307	18,201	6,611	2,761	1,222	1,363
18-23 months.	211,082	119,950	54,910	22,110	7,710	3,139	1,510	1,753
24-35 months.	377,656	230,021	93,502	33,919	11,240	4,650	2,065	2,259
36-47 months.	252,549	155,148	66,361	20,339	6,344	2,467	975	915
48-59 months.	154,494	89,575	44,878	13,338	4,110	1,464	604	525
60-71 months.	101,715	56,737	31,253	9,150	2,903	984	381	307
72 months or more.	233,852	127,186	73,781	22,239	6,896	2,232	862	656
Not stated	87,547	53,150	21,397	7,912	2,722	1,187	540	639
Black								
All intervals	381,098	184,591	108,196	49,829	21,115	9,274	4,124	3,969
0 months (plural deliveries)	7,149	2,137	2,260	1,350	752	365	140	145
1-11 months.	11,118	3,990	3,251	2,039	985	473	175	205
12-17 months.	52,533	20,430	15,041	8,834	4,211	2,040	960	1,017
18-23 months.	45,135	20,011	13,083	6,504	2,980	1,332	616	609
24-35 months.	64,254	30,990	18,373	8,445	3,462	1,560	710	714
36-47 months.	42,260	21,725	12,086	4,995	1,957	805	353	339
48-59 months.	30,965	16,108	9,023	3,525	1,345	555	217	192
60-71 months.	23,282	12,206	6,745	2,662	1,004	377	165	123
72 months or more.	72,476	39,623	20,583	7,773	2,765	1,025	426	281
Not stated	31,926	17,371	7,751	3,702	1,654	742	362	344

¹Excludes not-stated birth order.
²Includes races other than white and black.

NOTE: Excludes data for Texas, which did not require reporting of date of last live birth.

Table 21. Live births by educational attainment of mother and father and race of child: Total of 46 reporting States, the District of Columbia, and New York City, 1988

Years of school completed	Education of mother			Education of father		
	All races ¹	White	Black	All races ¹	White	Black
Total	2,847,239	2,182,785	554,468	2,847,239	2,182,785	554,468
0-5 years	15,843	9,591	2,665	14,150	10,413	1,611
6 years	13,739	10,650	1,907	12,673	10,675	1,078
7 years	15,248	10,021	4,331	8,428	6,868	1,013
8 years	55,696	40,951	12,425	34,295	30,001	2,921
9 years	103,805	72,746	26,852	51,744	44,136	5,561
10 years	165,668	111,084	48,265	92,472	75,299	13,862
11 years	202,820	121,432	73,993	119,490	89,050	26,177
12 years	1,151,520	877,345	235,595	977,338	783,075	161,651
13 years	222,311	176,848	39,485	137,934	115,459	18,321
14 years	266,802	213,556	43,984	224,168	188,691	27,438
15 years	92,534	72,964	16,020	76,757	63,080	10,476
16 years	341,157	297,695	28,846	340,357	303,132	23,591
17 years or more	152,647	133,417	10,524	233,949	208,397	11,036
Not stated	47,449	34,485	9,576	523,484	254,509	249,732

¹Includes races other than white and black.

NOTE: Excludes data for California, New York State (exclusive of New York City), Texas, and Washington, which did not require reporting of educational attainment of mother and father.

Table 22. Live births by educational attainment of mother, age of mother, and race of child: Total of 46 reporting States, the District of Columbia, and New York City, 1988

Age of mother and race of child	Total	Years of school completed by mother					
		0-8 years	9-11 years	12 years	13-15 years	16 years or more	Not stated
All races¹							
All ages	2,847,239	100,526	472,293	1,151,520	581,647	493,804	47,449
Under 15 years	8,088	6,258	1,625	-	-	-	205
15-19 years	355,357	28,391	191,466	117,077	12,317	134	5,972
15 years	19,113	6,579	12,016	144	-	-	374
16 years	41,174	6,011	33,503	879	16	-	765
17 years	71,551	5,478	54,663	10,051	161	-	1,198
18 years	99,277	5,247	49,030	41,176	2,155	-	1,669
19 years	124,242	5,076	42,254	64,827	9,985	134	1,966
20-24 years	784,852	25,235	152,471	408,710	154,817	31,707	11,912
25-29 years	905,149	19,655	81,266	377,642	227,020	184,877	14,689
30-34 years	577,782	12,681	32,995	187,949	140,567	193,348	10,242
35-39 years	188,293	6,390	10,313	51,994	41,680	74,185	3,731
40 years and over	27,718	1,916	2,157	8,148	5,246	9,553	698
White							
All ages	2,182,785	71,213	305,262	877,345	463,368	431,112	34,485
Under 15 years	2,570	2,023	466	-	-	-	81
15-19 years	221,160	19,574	115,375	74,758	7,724	100	3,629
15 years	8,415	3,200	4,964	67	-	-	184
16 years	22,310	3,920	17,432	520	10	-	428
17 years	43,085	4,155	32,275	5,860	95	-	700
18 years	63,603	4,169	31,823	25,345	1,208	-	1,058
19 years	83,747	4,130	28,881	42,966	6,411	100	1,259
20-24 years	575,419	20,370	105,710	300,342	115,009	25,789	8,199
25-29 years	733,972	14,981	55,557	305,452	185,588	161,239	11,155
30-34 years	475,938	8,754	20,833	150,841	116,761	170,671	8,078
35-39 years	152,030	4,301	6,032	39,742	34,062	65,068	2,825
40 years and over	21,696	1,210	1,289	6,210	4,224	8,245	518
Black							
All ages	554,468	21,328	149,110	235,595	99,489	39,370	9,576
Under 15 years	5,304	4,075	1,120	-	-	-	109
15-19 years	122,932	7,723	70,192	38,797	4,213	29	1,978
15 years	10,162	3,208	6,718	72	-	-	164
16 years	17,621	1,914	15,078	337	5	-	287
17 years	26,214	1,100	20,729	3,897	62	-	426
18 years	32,471	832	15,705	14,544	871	-	519
19 years	36,464	669	11,962	19,947	3,275	29	582
20-24 years	182,300	2,955	41,238	95,762	34,967	4,482	2,896
25-29 years	136,566	2,594	21,869	60,024	34,534	15,037	2,508
30-34 years	76,382	2,309	10,322	29,634	19,092	13,575	1,450
35-39 years	26,685	1,285	3,635	9,827	5,891	5,501	546
40 years and over	4,299	387	734	1,551	792	746	89

¹Includes races other than white and black.

NOTE: Excludes data for California, New York State (exclusive of New York City), Texas, and Washington, which did not require reporting of educational attainment of mother.

Table 23. Live births by Hispanic origin of mother and by race of child for mothers of non-Hispanic origin: Total of 30 reporting States and the District of Columbia, 1988

State	Origin of mother										
	All origins	Hispanic						Non-Hispanic			Not stated
		Total	Mexican	Puerto Rican	Cuban	Central and South American	Other and unknown Hispanic	Total ¹	White	Black	
All reporting States	2,856,492	449,604	271,170	46,232	10,189	57,610	64,403	2,247,312	1,652,782	455,883	159,576
Alabama	60,745	325	121	74	7	39	84	60,143	38,759	20,870	277
Arizona	65,623	16,343	15,826	80	26	122	289	49,148	39,010	2,827	132
Arkansas	35,035	239	122	11	2	20	84	34,334	25,645	8,292	462
California	533,148	182,905	131,695	1,554	802	21,308	27,546	347,487	236,891	50,379	2,756
Colorado	53,367	7,757	2,472	80	10	110	5,085	44,195	39,376	3,038	1,415
Connecticut	48,077	4,352	78	3,090	42	92	1,050	36,573	31,421	4,378	7,152
District of Columbia	10,540	698	31	7	4	590	66	8,858	1,202	7,522	984
Florida	184,119	21,797	3,346	2,844	6,814	3,858	4,935	161,297	115,317	43,275	1,025
Georgia	105,923	1,401	597	229	76	252	247	102,036	63,233	37,216	2,486
Hawaii	19,045	1,860	273	506	11	49	1,021	17,164	4,150	838	21
Illinois	184,841	18,978	12,533	3,173	183	1,272	1,817	161,947	115,628	41,124	3,916
Indiana	81,643	1,395	1,049	187	11	65	83	79,700	69,516	9,337	548
Kansas	38,792	1,381	1,011	65	12	77	216	34,338	29,834	3,389	3,073
Kentucky	51,058	274	125	54	8	9	78	50,284	44,814	5,072	500
Maine	17,172	92	21	4	3	4	60	15,948	15,587	109	1,132
Massachusetts	88,194	6,605	163	4,046	94	1,991	311	214	191	13	81,375
Mississippi	42,074	107	32	12	2	13	48	41,623	21,323	19,797	344
Montana	11,692	257	46	5	1	2	203	317	193	-	11,118
Nebraska	23,907	578	509	7	8	4	50	22,253	20,333	1,415	1,076
Nevada	18,008	1,891	1,271	57	72	174	317	16,042	12,916	1,932	75
New Jersey	117,764	14,493	637	7,209	1,044	4,660	943	90,515	66,035	20,685	12,756
New Mexico	27,015	11,240	2,150	27	2	46	9,015	15,764	10,881	620	11
New York	280,650	44,654	1,953	20,989	622	18,419	2,671	226,914	158,235	56,687	9,082
North Carolina	97,579	1,128	544	244	37	112	191	95,418	64,176	28,590	1,033
North Dakota	10,103	106	47	4	1	5	49	9,564	8,478	136	433
Ohio	160,529	2,195	877	754	44	113	407	152,483	125,879	24,779	5,851
Tennessee	70,711	308	117	26	7	35	123	69,123	51,605	16,934	1,280
Texas	303,418	100,756	90,110	731	224	4,041	5,650	201,588	151,589	42,912	1,074
Utah	36,055	1,659	918	42	9	23	667	34,056	32,057	283	340
Washington	72,503	3,417	2,290	120	11	103	893	62,249	53,200	3,350	6,837
Wyoming	7,162	413	206	1	-	2	204	5,737	5,308	84	1,012

¹Includes races other than white and black.

Table 24. Number and percent distribution of live births by race of child, according to Hispanic origin of mother: Total of 30 reporting States and the District of Columbia, 1988

Race of child	Origin of mother									
	All origins	Total	Hispanic						Non-Hispanic	Not stated
			Mexican	Puerto Rican	Cuban	Central and South American	Other and unknown Hispanic			
	Number									
All races	2,856,492	449,604	271,170	46,232	10,189	57,610	64,403	2,247,312	159,576	
White	2,214,935	426,824	265,679	41,300	9,721	50,895	59,229	1,652,782	135,329	
Black	486,965	14,643	2,689	4,077	400	5,204	2,273	455,883	16,439	
Other	154,592	8,137	2,802	855	68	1,511	2,901	138,647	7,808	
	Percent distribution									
All races	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
White	77.5	94.9	98.0	89.3	95.4	88.3	92.0	73.5	84.8	
Black	17.0	3.3	1.0	8.8	3.9	9.0	3.5	20.3	10.3	
Other	5.4	1.8	1.0	1.8	0.7	2.6	4.5	6.2	4.9	

Table 25. Birth and fertility rates, by Hispanic origin of mother: Total of 11 reporting States, 1988

Measure	Origin of mother						
	All origins	Hispanic					Non-Hispanic ²
		Total	Mexican	Puerto Rican	Cuban	Other Hispanic ¹	
Birth rate ³	16.9	24.1	23.2	19.6	9.8	34.2	15.7
Fertility rate ⁴	70.5	96.4	98.0	67.9	47.7	118.6	65.7

¹Includes Central and South American and Other and unknown Hispanic origin.

²Includes origin not stated.

³Rate per 1,000 total population.

⁴Rate per 1,000 women aged 15-44 years.

NOTE: The 11 States are Arizona, California, Colorado, Florida, Illinois, Indiana, New Jersey, New Mexico, New York, Ohio, and Texas.

Table 26. Live births by age and Hispanic origin of mother and by race of child for mothers of non-Hispanic origin: Total of 30 reporting States and the District of Columbia, 1988

Age of mother	Origin of mother									
	All origins ¹	Hispanic						Non-Hispanic		
		Total	Mexican	Puerto Rican	Cuban	Central and South American	Other and unknown Hispanic	Total ²	White	Black
All ages	2,856,492	449,604	271,170	46,232	10,189	57,610	64,403	2,247,312	1,652,782	455,883
Under 15 years	7,951	1,621	1,021	243	14	86	257	6,094	1,585	4,300
15-19 years	354,357	72,237	45,820	9,643	605	4,576	11,593	268,652	158,776	99,900
15 years	19,326	4,257	2,732	596	26	222	681	14,465	5,662	8,271
16 years	41,226	9,123	5,801	1,289	80	446	1,507	30,691	15,296	14,326
17 years	71,233	14,877	9,360	2,125	106	823	2,463	53,734	30,646	21,171
18 years	98,333	19,665	12,493	2,593	173	1,226	3,180	74,695	45,591	26,262
19 years	124,239	24,315	15,434	3,040	220	1,859	3,762	95,067	61,581	29,870
20-24 years	779,714	143,226	89,155	15,924	2,428	15,820	19,899	601,033	423,225	149,398
25-29 years	894,985	126,830	74,109	11,652	4,056	18,799	18,214	715,280	557,121	113,244
30-34 years	586,732	72,305	41,503	6,109	2,166	12,269	10,258	473,698	373,047	63,245
35-39 years	201,567	28,027	16,327	2,210	803	5,114	3,573	158,857	121,648	22,218
40-44 years	30,104	5,104	3,059	434	109	903	599	22,944	16,915	3,439
45-49 years	1,082	254	176	17	8	43	10	754	465	139

¹Includes origin not stated.

²Includes races other than white and black.

Table 27. Percent of births with selected characteristics, by Hispanic origin of mother and by race of child for mothers of non-Hispanic origin: Total of 30 reporting States and the District of Columbia, 1988

Characteristic	Origin of mother									
	All origins ¹	Hispanic						Non-Hispanic		
		Total	Mexican	Puerto Rican	Cuban	Central and South American	Other and unknown Hispanic	Total ²	White	Black
Fourth and higher order births	10.2	15.6	18.1	12.3	5.8	11.7	12.1	9.2	7.6	14.1
Births to unmarried mothers	26.2	34.0	30.6	53.3	16.3	36.4	35.5	24.9	14.9	63.7
Mothers completing 12 years or more of school ³	78.4	57.5	43.1	54.8	81.9	68.2	65.9	79.8	83.4	68.5
Mothers born in the United States	83.4	43.0	40.9	53.4	16.9	3.9	83.7	91.1	95.4	92.1
Mothers who began prenatal care in the first trimester	75.0	61.3	58.3	63.2	83.4	62.8	67.3	77.3	82.0	60.8
Mothers who had late or no prenatal care	6.5	12.1	13.9	10.2	3.6	9.9	8.8	5.6	4.1	10.9
Births of low birth weight ⁴	7.0	6.2	5.6	9.4	5.9	5.6	6.8	7.2	5.6	13.1
Preterm births ⁵	10.4	10.8	10.6	13.3	9.0	10.1	10.8	10.4	8.2	18.5
1-minute Apgar score less than 7 ⁶	8.5	7.3	7.8	6.8	4.9	6.0	9.3	8.7	8.0	11.2
5-minute Apgar score less than 7 ⁶	1.6	1.4	1.3	1.6	1.0	1.2	1.6	1.6	1.3	2.9

¹Includes origin not stated.

²Includes races other than white and black.

³Excludes data for California, New York State (exclusive of New York City), Texas, and Washington, which did not require reporting of educational attainment of mother.

⁴Birth weight of less than 2,500 grams (5 lb. 8 oz.).

⁵Born prior to 37 completed weeks of gestation.

⁶Excludes data for California and Texas, which did not require reporting of either 1- or 5-minute Apgar score.

Table 28. Live births by age of mother and specified race of child: United States, 1988

Age of mother	All races ¹	White	Black	American Indian ²	Asian or Pacific Islander				
					Chinese	Japanese	Hawaiian	Filipino	Other
All ages	3,909,510	3,046,162	671,976	45,871	22,904	10,483	7,661	24,612	76,598
Under 15 years	10,588	4,073	6,182	155	3	1	18	24	124
15-19 years	478,353	315,471	146,326	8,300	240	294	1,163	1,503	4,686
15 years	25,605	12,870	11,914	438	6	15	46	56	240
16 years	55,150	32,500	20,814	994	19	21	122	127	510
17 years	95,869	61,537	31,105	1,741	47	59	219	272	824
18 years	133,370	89,928	38,702	2,326	66	90	355	451	1,347
19 years	168,359	118,636	43,791	2,801	102	109	421	597	1,765
20-24 years	1,067,472	804,622	220,301	15,622	1,987	1,136	2,446	4,820	15,664
25-29 years	1,239,256	1,010,748	167,684	12,279	7,697	3,264	2,251	7,479	26,822
30-34 years	803,547	661,414	93,765	6,738	9,035	3,901	1,248	6,923	19,863
35-39 years	269,518	217,754	32,534	2,354	3,502	1,642	466	3,241	7,775
40-44 years	39,349	31,068	4,981	408	427	241	66	601	1,508
45-49 years	1,427	1,012	203	15	13	4	3	21	156

¹Includes births of other races not shown separately.²Includes births to Aleuts and Eskimos.

Table 29. Live births by birth weight and percent low birth weight, by specified race of child: United States, 1988

Birth weight ¹	All races ²	White	Black	American Indian ³	Asian or Pacific Islander				
					Chinese	Japanese	Hawaiian	Filipino	Other
					Number				
Total	3,909,510	3,046,162	671,976	45,871	22,904	10,483	7,661	24,612	76,598
Less than 2,500 grams	270,681	171,775	87,009	2,781	1,081	646	519	1,736	4,909
Less than 500 grams	5,042	2,677	2,235	31	7	7	6	15	60
500-999 grams	18,720	10,591	7,515	164	60	40	27	74	232
1,000-1,499 grams	24,818	14,948	8,898	276	75	41	37	136	385
1,500-1,999 grams	51,535	32,399	17,024	525	189	109	83	319	855
2,000-2,499 grams	170,566	111,160	51,337	1,785	750	449	366	1,192	3,377
2,500-2,999 grams	624,865	431,097	156,916	6,609	4,440	2,171	1,407	5,272	16,328
3,000-3,499 grams	1,429,032	1,097,349	253,963	16,476	10,090	4,470	2,907	10,314	32,205
3,500-3,999 grams	1,149,966	964,376	136,240	14,104	5,898	2,505	2,122	5,691	18,166
4,000-4,499 grams	357,377	313,455	31,093	4,730	1,185	599	575	1,370	4,151
4,500-4,999 grams	64,993	57,853	4,935	952	181	74	100	200	650
5,000 grams or more	8,362	7,187	844	147	21	8	19	16	118
Not stated	4,234	3,070	976	72	8	10	12	13	71
					Percent				
Less than 2,500 grams	6.9	5.6	13.0	6.1	4.7	6.2	6.8	7.1	6.4

¹Equivalents of the gram weights in pounds and ounces are shown in table 15.²Includes births of other races not shown separately.³Includes births to Aleuts and Eskimos.

Table 30. Live births by month of pregnancy prenatal care began, age of mother, and race of child: United States, 1988

Age of mother and race of child	Month of pregnancy prenatal care began						
	All births	1st and 2d months	3d month	4th-6th months	7th-9th months	No prenatal care	Not stated
All races¹							
All ages	3,909,510	2,094,026	805,189	685,643	159,866	72,998	91,788
Under 15 years.	10,588	1,937	1,782	4,322	1,485	655	407
15-19 years.	478,353	144,967	103,382	157,230	41,532	17,371	13,871
15 years.	25,605	5,788	4,955	9,917	2,868	1,207	870
16 years.	55,150	14,129	11,242	20,222	5,586	2,299	1,672
17 years.	95,869	26,963	20,723	32,943	8,808	3,546	2,886
18 years.	133,370	40,370	29,186	43,760	11,399	4,766	3,889
19 years.	168,359	57,717	37,276	50,388	12,871	5,553	4,554
20-24 years.	1,067,472	494,723	230,725	232,938	56,750	25,701	26,635
25-29 years.	1,239,256	747,814	250,359	163,287	34,541	16,607	26,648
30-34 years.	803,547	514,753	157,322	88,560	17,413	8,603	16,896
35-39 years.	269,518	167,493	53,270	32,647	6,578	3,297	6,233
40 years and over.	40,776	22,339	8,349	6,659	1,567	764	1,098
White							
All ages	3,046,162	1,743,369	625,971	465,927	105,348	43,480	62,067
Under 15 years.	4,073	745	756	1,543	605	260	164
15-19 years.	315,471	101,844	71,337	98,590	25,511	9,945	8,244
15 years.	12,870	3,145	2,634	4,707	1,405	572	407
16 years.	32,500	8,824	6,994	11,367	3,184	1,221	910
17 years.	61,537	18,263	13,992	20,334	5,316	1,960	1,672
18 years.	89,928	28,706	20,521	28,352	7,179	2,800	2,370
19 years.	118,636	42,906	27,196	33,830	8,427	3,392	2,885
20-24 years.	804,622	399,220	175,422	159,168	37,772	15,526	17,514
25-29 years.	1,010,748	640,103	202,022	115,991	23,812	9,967	18,853
30-34 years.	661,414	441,807	127,693	62,665	11,981	5,125	12,143
35-39 years.	217,754	141,212	42,277	23,237	4,533	2,103	4,392
40 years and over.	32,080	18,438	6,464	4,733	1,134	554	757
Black							
All ages	671,976	257,378	138,955	181,876	44,048	26,560	23,159
Under 15 years.	6,182	1,120	979	2,657	832	370	224
15-19 years.	146,326	38,651	28,572	52,987	14,222	6,937	4,957
15 years.	11,914	2,468	2,180	4,884	1,349	604	429
16 years.	20,814	4,861	3,899	8,168	2,192	1,005	689
17 years.	31,105	7,896	6,051	11,502	3,103	1,489	1,064
18 years.	38,702	10,376	7,656	13,803	3,702	1,831	1,334
19 years.	43,791	13,050	8,786	14,630	3,876	2,008	1,441
20-24 years.	220,301	78,693	46,011	63,081	15,712	9,276	7,528
25-29 years.	167,684	75,687	35,741	36,608	7,984	5,850	5,814
30-34 years.	93,765	45,494	19,524	18,765	3,710	2,999	3,273
35-39 years.	32,534	15,547	6,980	6,543	1,320	961	1,183
40 years and over.	5,184	2,186	1,148	1,235	268	167	180

¹Includes races other than white and black.

Table 31. Live births by month of pregnancy prenatal care began, number of prenatal visits, and race of child: Total of 49 reporting States and the District of Columbia, 1988

Number of prenatal visits and race of child	Month of pregnancy prenatal care began						
	All births	1st and 2d months	3d month	4th-6th months	7th-9th months	No prenatal care	Not stated
All races¹							
Total	3,376,362	1,802,521	700,855	587,761	138,711	61,915	84,599
No visits	61,915	...	...	...	...	61,915	...
1-2 visits	57,627	6,240	4,693	14,862	29,175	...	2,657
3-4 visits	104,614	12,363	11,154	41,518	37,079	...	2,500
5-6 visits	198,455	37,076	33,913	91,256	32,983	...	3,227
7-8 visits	325,189	98,948	76,135	126,690	19,807	...	3,609
9-10 visits	644,421	294,995	179,836	154,105	9,996	...	5,489
11-12 visits	902,753	591,286	213,985	88,763	3,918	...	4,801
13-14 visits	502,981	373,486	94,903	30,912	1,305	...	2,375
15-16 visits	310,868	238,202	50,515	19,420	935	...	1,796
17-18 visits	68,423	52,183	11,733	3,959	181	...	367
19 visits or more	97,949	74,197	15,063	7,607	421	...	661
Not stated	101,167	23,545	8,925	8,669	2,911	...	57,117
White							
Total	2,630,843	1,513,966	545,565	390,641	88,903	34,808	56,960
No visits	34,808	...	...	...	...	34,808	...
1-2 visits	31,497	3,602	2,495	7,083	16,911	...	1,406
3-4 visits	60,857	7,275	6,330	22,776	23,079	...	1,397
5-6 visits	126,418	24,748	21,871	55,924	21,950	...	1,925
7-8 visits	232,459	75,616	55,968	85,040	13,503	...	2,332
9-10 visits	499,075	241,280	140,380	106,847	6,926	...	3,642
11-12 visits	754,606	510,096	174,492	63,649	2,783	...	3,586
13-14 visits	428,672	325,637	77,248	22,930	973	...	1,884
15-16 visits	257,087	201,628	39,986	13,420	680	...	1,373
17-18 visits	57,254	44,651	9,350	2,839	134	...	280
19 visits or more	78,335	61,419	11,168	5,001	269	...	478
Not stated	69,775	18,014	6,277	5,132	1,695	...	38,657
Black							
Total	618,337	231,985	127,939	169,450	41,718	24,970	22,275
No visits	24,970	...	...	...	...	24,970	...
1-2 visits	22,835	2,354	1,972	7,024	10,391	...	1,094
3-4 visits	37,769	4,496	4,222	16,372	11,736	...	943
5-6 visits	61,220	10,512	10,241	30,285	9,110	...	1,072
7-8 visits	76,888	18,926	16,474	35,258	5,195	...	1,035
9-10 visits	118,999	42,589	32,080	40,241	2,572	...	1,517
11-12 visits	119,169	63,708	32,046	21,518	951	...	946
13-14 visits	59,585	37,809	14,302	6,839	263	...	372
15-16 visits	44,941	30,197	8,856	5,313	223	...	352
17-18 visits	8,992	5,950	1,959	974	41	...	68
19 visits or more	16,918	10,818	3,423	2,397	134	...	146
Not stated	26,051	4,626	2,364	3,229	1,102	...	14,730

¹Includes races other than white and black.

NOTE: Excludes data for California, which did not require reporting of number of prenatal visits.

Table 32. Live births by period of gestation, birth weight, and race of child: United States, 1988

Birth weight ¹ and race of child	Period of gestation									
	All births	Under 28 weeks	28-31 weeks	32-35 weeks	36 weeks	37-39 weeks	40 weeks	41 weeks	42 weeks and over	Not stated
All races²										
Total	3,909,510	29,658	43,807	182,123	127,106	1,499,907	814,488	541,352	504,681	166,388
Less than 500 grams	5,042	3,657	167	66	6	78	39	37	33	959
500-999 grams	18,720	11,278	3,256	849	100	347	158	133	171	2,428
1,000-1,499 grams	24,818	3,737	10,748	5,245	572	1,176	306	180	337	2,517
1,500-1,999 grams	51,535	1,562	9,297	21,764	3,674	7,777	1,268	777	1,331	4,085
2,000-2,499 grams	170,566	1,517	4,839	45,662	20,238	60,425	11,793	6,372	9,181	10,539
2,500-2,999 grams	624,865	2,359	5,580	46,904	44,559	300,043	89,805	48,909	56,778	29,928
3,000-3,499 grams	1,429,032	2,987	5,992	38,751	38,098	623,489	305,772	181,507	175,277	57,159
3,500-3,999 grams	1,149,966	1,558	3,002	17,855	15,610	394,774	293,126	205,084	177,038	41,919
4,000-4,499 grams	357,377	348	657	4,005	3,440	94,554	93,917	80,026	67,883	12,547
4,500-4,999 grams	64,993	91	95	686	628	14,481	16,100	16,149	14,466	2,297
5,000 grams or more	8,362	141	26	104	95	2,004	1,789	1,917	1,932	354
Not stated	4,234	423	148	232	86	759	415	261	254	1,656
White										
Total	3,046,162	16,034	25,384	117,352	89,140	1,154,975	665,423	451,101	406,292	120,461
Less than 500 grams	2,677	1,981	84	32	2	45	25	23	22	463
500-999 grams	10,591	6,384	1,938	488	52	203	86	75	97	1,268
1,000-1,499 grams	14,948	1,998	6,676	3,261	369	695	177	111	198	1,463
1,500-1,999 grams	32,399	669	5,752	14,072	2,349	5,011	830	486	806	2,424
2,000-2,499 grams	111,160	666	2,447	30,419	13,596	39,589	7,798	4,229	6,028	6,388
2,500-2,999 grams	431,097	1,112	2,591	29,660	31,062	208,605	64,206	35,176	39,466	19,219
3,000-3,499 grams	1,097,349	1,612	3,299	23,610	27,037	477,750	242,025	144,957	135,618	41,441
3,500-3,999 grams	964,376	979	1,945	12,071	11,427	327,017	250,720	177,412	149,080	33,725
4,000-4,499 grams	313,455	258	477	2,977	2,633	81,232	83,223	71,969	60,032	10,654
4,500-4,999 grams	57,853	59	69	515	479	12,554	14,406	14,728	13,044	1,999
5,000 grams or more	7,187	78	14	72	73	1,660	1,589	1,706	1,703	292
Not stated	3,070	238	92	175	61	614	338	229	198	1,125
Black										
Total	671,976	12,631	16,603	55,754	31,382	264,344	110,829	67,537	77,131	35,765
Less than 500 grams	2,235	1,590	75	34	2	26	14	11	11	472
500-999 grams	7,515	4,555	1,208	334	41	132	60	52	65	1,068
1,000-1,499 grams	8,898	1,616	3,666	1,745	188	432	117	63	123	948
1,500-1,999 grams	17,024	843	3,216	6,801	1,177	2,419	387	245	480	1,456
2,000-2,499 grams	51,337	801	2,190	13,387	5,695	17,713	3,374	1,846	2,758	3,573
2,500-2,999 grams	156,916	1,150	2,726	14,861	11,185	72,506	20,243	11,152	14,465	8,628
3,000-3,499 grams	253,963	1,243	2,356	12,826	9,033	110,134	47,517	27,603	31,435	11,816
3,500-3,999 grams	136,240	505	934	4,749	3,289	49,736	30,285	19,865	21,056	5,821
4,000-4,499 grams	31,093	76	147	825	610	9,494	7,479	5,588	5,586	1,288
4,500-4,999 grams	4,935	29	21	119	120	1,388	1,152	950	953	203
5,000 grams or more	844	58	12	25	19	255	144	139	153	39
Not stated	976	165	52	48	23	109	57	23	46	453

¹Equivalents of the gram weights in pounds and ounces are shown in table 15.
²Includes races other than white and black.

Table 33. Live births by 1- and 5-minute Apgar scores and race of child: Total of 46 reporting States and the District of Columbia, 1988

1-minute score and race of child	Total	5-minute score										Not stated	
		0	1	2	3	4	5	6	7	8	9		10
All races¹													
Total	3,015,130	2,741	6,402	3,243	3,238	4,912	8,784	19,211	49,110	233,451	2,150,352	500,255	33,431
0	2,816	1,346	404	207	161	147	104	73	75	89	147	46	17
1	19,713	740	4,683	1,104	1,321	1,618	1,907	2,296	2,133	2,001	1,639	80	191
2	19,619	181	716	1,249	746	1,337	2,084	3,005	3,244	3,710	3,089	139	119
3	25,357	47	219	275	528	791	1,973	3,652	5,253	6,361	5,932	247	79
4	36,831	13	59	104	127	443	1,213	4,206	7,602	11,088	11,496	399	81
5	57,533	15	43	80	100	119	681	3,260	10,961	19,128	22,123	932	91
6	102,556	17	34	54	78	126	214	1,590	11,452	38,900	47,835	2,155	101
7	283,532	47	39	47	63	95	215	455	6,021	82,277	186,511	7,607	155
8	1,177,782	150	74	69	71	153	231	407	1,666	67,315	1,052,864	54,348	434
9	1,224,003	173	99	30	25	61	130	228	607	2,283	817,734	402,118	515
10	32,390	6	5	3	2	2	3	5	7	35	327	31,924	71
Not stated	32,998	6	27	21	16	20	29	34	89	264	655	260	31,577
White													
Total	2,334,978	1,555	3,657	1,843	1,973	3,067	5,687	12,993	35,479	178,752	1,657,242	408,285	24,445
0	1,616	667	249	131	119	102	65	50	46	59	86	31	11
1	12,147	448	2,612	630	810	988	1,184	1,443	1,377	1,351	1,121	59	124
2	12,951	118	437	672	439	851	1,334	1,971	2,219	2,585	2,143	110	72
3	17,518	26	120	159	301	498	1,316	2,422	3,602	4,532	4,316	186	40
4	26,128	5	31	60	73	274	813	2,959	5,352	7,924	8,258	328	51
5	42,200	7	23	47	65	69	455	2,240	7,959	13,992	16,490	789	64
6	78,507	6	21	31	45	69	148	1,132	8,574	29,580	37,008	1,822	71
7	224,533	28	25	34	45	56	138	310	4,622	64,191	148,492	6,483	109
8	928,889	105	50	44	47	103	138	301	1,255	52,645	827,061	46,820	320
9	939,959	141	69	21	19	40	81	140	419	1,718	611,603	325,348	360
10	26,501	1	4	1	1	2	2	4	5	24	278	26,133	46
Not stated	24,029	3	16	13	9	15	13	21	49	151	386	176	23,177
Black													
Total	566,863	1,112	2,575	1,297	1,163	1,693	2,824	5,627	12,047	46,690	410,090	74,223	7,522
0	1,103	643	141	66	37	42	34	21	25	25	52	12	5
1	6,904	274	1,941	439	465	576	659	765	673	579	452	16	65
2	5,985	59	261	540	283	448	680	936	911	993	810	20	44
3	6,990	19	95	113	211	268	609	1,114	1,475	1,610	1,388	51	37
4	9,518	8	27	38	51	153	362	1,147	2,026	2,788	2,831	59	28
5	13,429	8	18	33	32	46	211	914	2,658	4,454	4,904	127	24
6	20,626	11	13	22	31	52	55	412	2,516	8,079	9,130	276	29
7	49,205	17	14	10	17	37	73	129	1,221	15,360	31,377	911	39
8	202,913	40	24	19	22	47	85	97	339	12,202	184,001	5,941	96
9	237,730	27	30	7	6	19	41	79	167	488	174,879	61,851	136
10	4,966	4	1	2	1	-	1	1	1	11	37	4,885	22
Not stated	7,494	2	10	8	7	5	14	12	35	101	229	74	6,997

¹Includes races other than white and black.

NOTE: Excludes data for California, Delaware, Oklahoma, and Texas, which did not require reporting of either 1- or 5-minute Apgar scores.

Table 34. Live births by 5-minute Apgar score, age of mother, and race of child: Total of 46 reporting States and the District of Columbia, 1988

Age of mother and race of child	Total	5-minute score											Not stated
		0	1	2	3	4	5	6	7	8	9	10	
All races¹													
All ages	3,015,130	2,741	6,402	3,243	3,238	4,912	8,784	19,211	49,110	233,451	2,150,352	500,255	33,431
Under 15 years.	8,206	19	49	21	16	26	42	100	221	780	5,779	1,009	144
15-19 years.	366,762	477	1,118	541	542	797	1,465	3,277	7,627	32,209	260,464	54,067	4,178
15 years.	19,517	40	85	30	38	59	116	228	479	1,782	13,768	2,617	275
16 years.	42,135	63	158	70	65	117	191	425	934	3,850	29,749	5,955	558
17 years.	73,778	111	212	115	122	162	301	672	1,540	6,579	52,414	10,734	816
18 years.	102,538	132	303	147	153	217	409	923	2,054	8,972	72,891	15,240	1,097
19 years.	128,794	131	360	179	164	242	448	1,029	2,620	11,026	91,642	19,521	1,432
20-24 years.	820,618	784	1,746	951	926	1,422	2,560	5,451	14,467	66,986	584,907	131,637	8,781
25-29 years.	962,724	778	1,729	867	904	1,355	2,458	5,369	14,225	71,018	689,473	164,410	10,138
30-34 years.	622,950	462	1,236	626	588	885	1,574	3,510	8,894	44,484	444,808	108,812	7,071
35-39 years.	203,894	194	452	195	223	351	562	1,266	3,133	15,520	144,184	35,200	2,614
40-44 years.	28,952	26	71	39	37	74	120	230	523	2,370	20,046	4,940	476
45-49 years.	1,024	1	1	3	2	2	3	8	20	84	691	180	29
White													
All ages	2,334,978	1,555	3,657	1,843	1,973	3,067	5,687	12,993	35,479	178,752	1,657,242	408,285	24,445
Under 15 years.	2,636	2	14	8	4	5	19	31	72	278	1,762	388	53
15-19 years.	230,732	224	513	263	282	407	791	1,870	4,703	20,957	161,392	36,885	2,445
15 years.	8,677	15	26	11	14	31	41	84	213	832	5,977	1,314	119
16 years.	23,059	26	59	23	32	57	93	207	521	2,257	15,992	3,520	272
17 years.	44,896	49	97	59	61	87	165	374	927	4,169	31,404	7,046	458
18 years.	66,378	66	149	72	79	101	237	554	1,295	6,019	46,389	10,729	688
19 years.	87,722	68	182	98	96	131	255	651	1,747	7,680	61,630	14,276	908
20-24 years.	607,731	386	934	514	530	867	1,586	3,609	10,193	49,628	429,746	103,793	5,945
25-29 years.	786,728	492	1,033	536	587	920	1,712	3,834	10,946	57,279	561,728	139,862	7,799
30-34 years.	517,403	303	808	376	392	594	1,099	2,555	6,837	36,283	369,133	93,308	5,715
35-39 years.	166,078	132	304	120	152	219	391	909	2,339	12,432	117,137	29,857	2,086
40-44 years.	22,939	15	51	25	25	54	86	179	374	1,834	15,863	4,053	380
45-49 years.	731	1	-	1	1	1	3	6	15	61	481	139	22
Black													
All ages	566,863	1,112	2,575	1,297	1,163	1,693	2,824	5,627	12,047	46,690	410,090	74,223	7,522
Under 15 years.	5,354	16	34	11	12	21	21	67	145	484	3,860	596	87
15-19 years.	125,132	244	581	267	245	369	638	1,335	2,729	10,302	91,028	15,855	1,539
15 years.	10,303	24	59	19	24	26	72	137	255	887	7,400	1,257	143
16 years.	17,871	36	96	44	31	56	94	207	388	1,494	12,892	2,280	253
17 years.	26,744	59	113	54	56	72	130	283	572	2,220	19,435	3,423	327
18 years.	33,039	64	141	74	72	110	165	350	700	2,674	24,190	4,136	363
19 years.	37,175	61	172	76	62	105	177	358	814	3,027	27,111	4,759	453
20-24 years.	185,951	376	774	413	374	525	905	1,695	3,851	15,226	135,216	24,181	2,415
25-29 years.	139,978	269	650	305	291	390	663	1,359	2,833	11,365	101,475	18,468	1,910
30-34 years.	78,467	144	392	216	171	259	420	827	1,729	6,521	55,979	10,719	1,090
35-39 years.	27,533	53	129	72	59	111	148	297	638	2,382	19,486	3,755	403
40-44 years.	4,260	10	15	11	10	17	29	45	118	398	2,912	622	73
45-49 years.	188	-	-	2	1	1	-	2	4	12	134	27	5

¹ Includes races other than white and black.

NOTE: Excludes data for California, Delaware, Oklahoma, and Texas, which did not require reporting of 5-minute Apgar score.

Technical notes

Source of data

Data shown in this report for 1988 are based on 100 percent of the birth certificates in all States and the District of Columbia. The data are provided to the National Center for Health Statistics through the Vital Statistics Cooperative Program (VSCP). In 1984 and earlier years, the VSCP included varying numbers of States, which provided data based on 100 percent of their birth certificates. Data for States not in the VSCP were based on a 50-percent sample of birth certificates filed in those States. Information on sampling procedures and sampling errors for 1984 and earlier years is provided in the annual report, *Vital Statistics of the United States*, Volume I, Natality.

Concurrent with the 1978 revision of the U.S. Standard Certificate of Live Birth, NCHS recommended that States add items to identify the Hispanic or ethnic origin of the newborn's mother and father. Data for Hispanic origin shown in this report are for the 30 States and the District of Columbia that reported this information in 1988. Questions on parents' origin were generally in one of two basic formats. The first format was directed toward the Hispanic population and asked whether the mother and father were of Spanish origin. If so, the specific origin, such as Mexican, Puerto Rican, or Cuban, was to be indicated. The second format was an open-ended item to obtain the specific origin or descent of each parent (for example, Italian, Mexican, German, Puerto Rican, English, or Cuban).

The data by Hispanic origin shown in the tables are for births to all residents of the reporting area, regardless of where the births occurred. Births occurring in nonreporting States to residents of the reporting area are included in the "not stated" origin category.

Racial classification

The racial designation used in this report is that of the child, which is determined from the race of the parents as entered on the birth certificate. When the parents are of different races and one parent is white, the child is assigned to the other parent's race.

When the parents are of different races and neither parent is white, the child is assigned to the father's race with one exception: If the mother is Hawaiian or part Hawaiian, the child is considered Hawaiian. When the race of one parent is missing on the certificate, the child is assigned the race of the other parent. When race is not reported for either parent, the child is assigned the race of the child on the immediately preceding record.

Population denominators

Birth and fertility rates for 1988 shown in tables 1 and 3-5 are based on populations estimated as of July 1, 1988. The population estimates for the United States were published by the U.S. Bureau of the Census (17) and are based on the 1980 census count. The 1980 census counts by race were modified to be consistent with Office of Management and Budget categories and historical categories for birth data. The modification procedures are discussed in detail in a U.S. Bureau of the Census report (18).

Birth and fertility rates for the Hispanic population, shown in table 25, are based on estimates of the Hispanic population from the Current Population Survey conducted in March 1988 (11). Beginning with 1986, the Current Population Survey figures include estimates of undocumented immigrants (19). The effect of this change may be to reduce the levels of the birth and fertility rates by about 1 percent.

Estimates of the Hispanic population were provided for 11 States—Arizona, California, Colorado, Florida, Illinois, Indiana, New Jersey, New Mexico, New York, Ohio, and Texas. These estimates are consistent with postcensal independent estimates of the Hispanic population for the United States by age and sex, based on 1980 census data. The population data are based on small samples and may, therefore, be subject to substantial sampling error. Information on the derivation of

these estimates and the sampling error is provided in a U.S. Bureau of the Census report (11).

Computation of rates

In computing birth and fertility rates for the Hispanic population, births with origin of mother not stated are included with non-Hispanic births rather than being distributed. Thus, rates for the Hispanic population are underestimates of the true rates to the extent that the births in the 11-State area with origin of mother not stated (1.9 percent) were actually to Hispanic mothers. The population with origin not stated was imputed. The effect on the rates is believed to be small.

Births by marital status of mother

Beginning with 1980 data, national estimates of births to unmarried women have been derived from two sources. In 1988, marital status was reported directly on the birth certificate by 42 States and the District of Columbia. In the remaining 8 States, which lack such an item, marital status is inferred from a comparison of the child's and parents' surnames. This procedure represents a substantial departure from the method used before 1980 to prepare national estimates of births to unmarried women. The previous method assumed that the incidence of births to unmarried women in States with no direct question on marital status was the same as the incidence in reporting States in the same geographic division.

The current method represents an attempt to use related information on the birth certificate to improve the quality of national data as well as to provide data for the individual nonreporting States. An evaluation of this method and its validity for California (the largest nonreporting State) has been published (20). Because of the continued substantial increases in all measures of nonmarital childbearing in 1988, an intensive evaluation of the national data was made. There has been continuing concern that the current method, incorporating data based on a

comparison of surnames, might overstate the number of births to unmarried women. This is because births to women who have retained their maiden surname as their legal surname after marriage and who are frequently older, well-educated women, would be classified as births to unmarried women. The evaluation included comparisons of trends in nonmarital births in States with a marital status item on the birth certificate with trends in those States providing inferential data based on a comparison of surnames. Trends for the 1987-88 and 1980-88 periods were evaluated. The comparisons were made for white and black births separately by age of mother. The results were generally similar for both sets of States, but nonmarital births increased at a slightly faster rate in the States with a marital-status item on the birth certificate than in the States providing inferential data. This pattern was observed for both white and black births.

Computation of percents, percent distributions, and medians

Births with unknown live-birth order, attendant at birth, educational

attainment of mother, nativity of mother, month of pregnancy in which prenatal care began, number of prenatal visits, interval since last live birth, birth weight, length of gestation, and 1- and 5-minute Apgar scores were subtracted from the figures for total births that were used as denominators before percents, percent distributions, and medians were computed. In the case of birth intervals, the percent distributions exclude the second, or later, born child in a multiple delivery (interval of 0 months). Percent distributions and the median number of prenatal visits also exclude births to mothers who had no prenatal care. Computations of the median number of prenatal visits were based on tabulations of ungrouped data.

Random variation

Although the birth data in this report for births since 1985 are not subject to sampling error, they may be affected by random variation in the number of births involved. When the number of events is small (perhaps less than 100) and the probability of such an event is small, considerable caution must be observed in interpreting the

data. More information on this topic is included in the Technical Appendix of the annual report, *Vital Statistics of the United States*, Volume I, Natality.

Related reports

Many of the topics discussed in this report are covered in more analytical detail in other reports published by the National Center for Health Statistics. Topics of reports published in the past 5 years include American Indian and Alaska Native births (21), first births to older mothers (1), low birth weight (8), and births of Hispanic parentage (22-24). Also available is a report evaluating inferred birth statistics for unmarried women in California (20).

NOTE: A list of references follows the text.

Symbols

- - - Data not available
 - . . . Category not applicable
 - Quantity zero
 - 0.0 Quantity more than zero but less than 0.05
 - Z Quantity more than zero but less than 500 where numbers are rounded to thousands
 - * Figure does not meet standard of reliability or precision
-

This report presents summary tabulations from the final natality statistics for 1988. More detailed tabulations for 1988 will be published in *Vital Statistics of the United States, Volume I—Natality*. Prior to the publication of that volume, the National Center for Health Statistics will respond to requests for unpublished data whenever possible.

Suggested citation

National Center for Health Statistics. Advance report of final natality statistics, 1988. Monthly vital statistics report; vol 39, no 4, suppl. Hyattsville, Maryland: Public Health Service. 1990.

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Public Health Service
Centers for Disease Control
National Center for Health Statistics
6525 Belcrest Road
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DHHS Publication No. (PHS) 90-1120