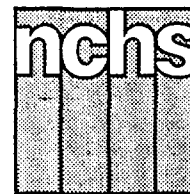


Monthly Vital Statistics Report



Final Data From the CENTERS FOR DISEASE CONTROL AND PREVENTION/National Center for Health Statistics

Advance Report of Final Natality Statistics, 1990

Contents

Births and birth rates	1
Births by race	5
Total fertility rate	6
Geographic areas	6
Sex ratio	6
Month of birth	6
Day of week	7
Place of delivery	7
Attendant at birth	7
Age of father	8
Weight at birth	8
Multiple births	8
Unmarried mothers	9
Interval	10
Education	10
Hispanic births	10
Specified race	12
Prenatal care	12
Prenatal visits	13
Period of gestation	13
Apgar score	13
References	14
List of tables	15
Technical notes	53

Births and birth rates

There were 4,158,212 babies born in the United States in 1990, a 3-percent increase compared with the 1989 total of 4,040,958 and the third consecutive year marking such an increase (table 1). Provisional data for 1991 indicate a 1-percent decline in the number of births; there appears to be a slight additional decline in the number in 1992. The 1990 total is the highest number reported since 1962 (4,167,362) (table 1 and figure 1).

The birth rate for 1990 was 16.7 births per 1,000 population, 2 percent higher than the 1989 rate of 16.4 and higher than the rate in any year since 1971, when it was 17.2. According to provisional data, a 3-percent drop in the birth rate is expected for 1991 and a similar decline appears likely in 1992.

The fertility rate, which relates the number of births to women of child-bearing age, rose 2 percent in 1990, to 70.9 live births per 1,000 women aged

15–44 years compared with 69.2 in 1989. The 1990 rate is higher than the rate for any year since 1972 (73.1). Provisional data indicate a 2-percent decline in the fertility rate for 1991, with little additional change expected in 1992.

Age-specific birth rates increased by 2–6 percent for women in all age groups 15–44 years (see tables 2–4 for births and birth rates by age of mother and figure 2 for birth rates by age of mother). Increases were smallest (2 percent) for women in the peak childbearing ages 20–24 and 25–29 years. The rate of 116.5 for women aged 20–24 years, however, was the highest rate reported since 1974 (117.7), and the rate of 120.2 for women aged 25–29 years was higher than in any year since 1971, when it was 134.1.

The birth rate for women aged 18–19 years rose 5 percent, from 84.2 in 1989 to 88.6 per 1,000 in 1990, the highest it has been since 1974 (88.7).

Acknowledgments

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U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
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Centers for Disease Control and Prevention
National Center for Health Statistics



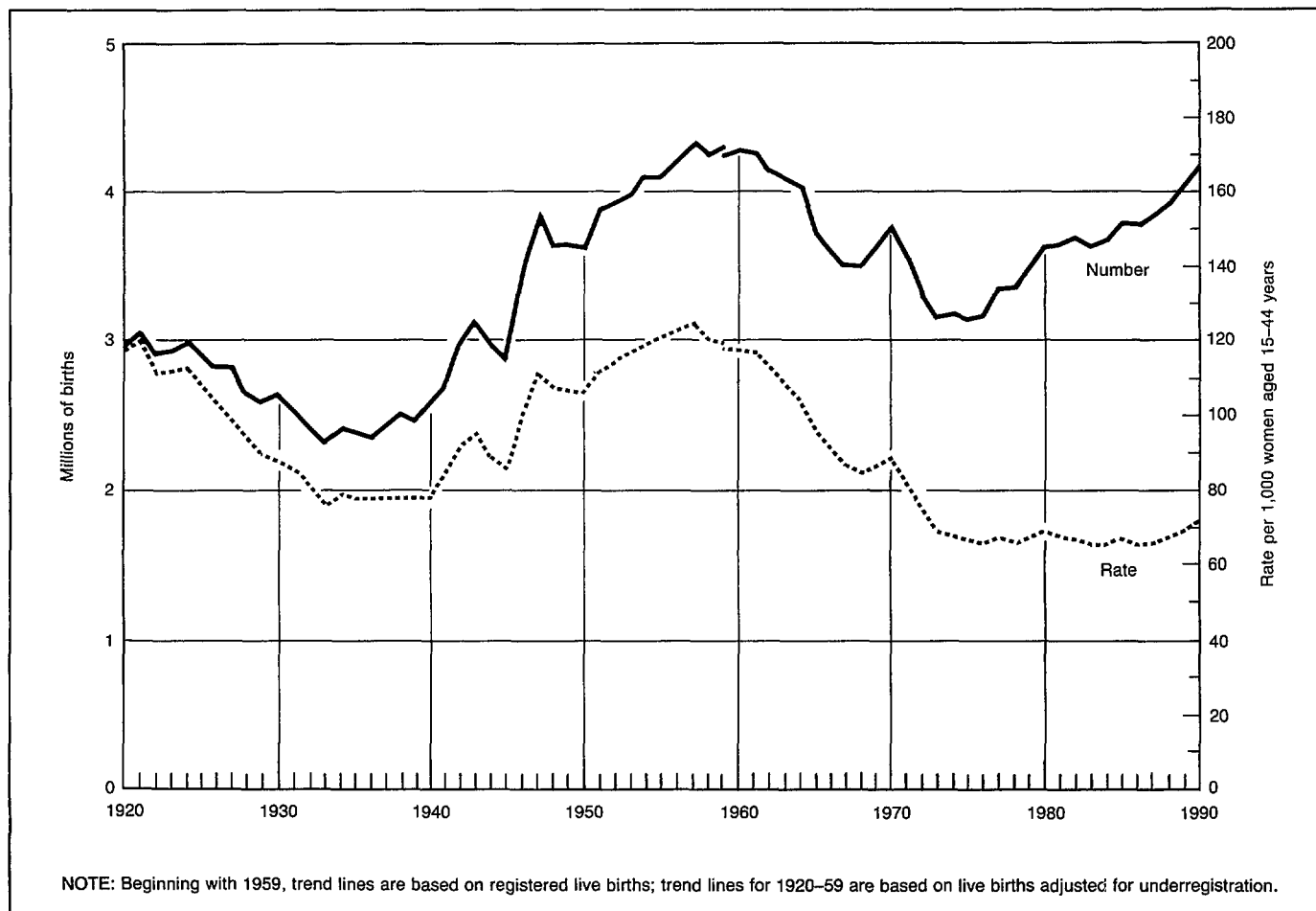


Figure 1. Live births and fertility rates: United States, 1920-90

This rate increased 13 percent between 1987 and 1990.

The rate for teenagers 15-17 years of age increased by 3 percent in 1990, to 37.5 per 1,000, higher than the rate in any year since 1973, when it was 38.5. The 1990 rise was smaller, however, than during 1986-89, when the rate rose by 4-8 percent annually. The 23-percent rise in the birth rate for teenagers 15-17 years of age, over the 4-year period 1986-90, translates into more than 34,000 additional births in 1990 than would have occurred had the rate in 1990 been at the 1986 level of 30.5 instead of 37.5.

Rates for women aged 35-39 and 40-44 years continued the steady increases observed beginning in the mid-1970's. The rate for women aged 35-39 years increased 6 percent, from 29.9 in 1989 to 31.7 in 1990. Between 1980 and 1990, this rate increased 60 percent. The rate for women aged 40-44 years also rose 6 percent

between 1989 and 1990, from 5.2 to 5.5 per 1,000. The rate for 1990 was 41 percent higher than the rate for 1980 (3.9). Women aged 35-44 years were born during the post World War II baby-boom years, 1946-55. The combined impact of the increases in birth rates for these women and in the numbers of women in these ages has been substantial, resulting in more births in 1990 to women aged 35-39 years (317,583) than in any year since 1963 and more to women aged 40-44 (48,607) than in two decades. As recently as 1980, there were only 140,793 births to women aged 35-39 years and 23,090 to women aged 40-44. The birth rate for women in their late forties remained at 0.2 per 1,000, unchanged since 1976.

The rate for women aged 30-34 years rose 4 percent in 1990, to 80.8, higher than the rate in any year since 1966 (85.1). Except for 1981, this rate has increased annually since 1975,

from 52.3 to 61.9 in 1980 and then to 80.8 in 1990, an overall increase of 54 percent.

The continued rise in the birth rate for women in their early thirties has coincided with the sustained growth in the number of women in that age group, reflecting the impact of the baby-boom period on current population patterns. The number of babies born in 1990 to women aged 30-34 years (886,063) was the highest number ever recorded. Women in this age group accounted for 21 percent of all births in 1990. Just 15 years earlier, in 1975, the number of births to women aged 30-34 totaled only 375,500, 12 percent of the 1975 total.

As in 1989, the increases in age-specific birth rates in 1990 of 4-6 percent for ages 18-19 and 30 years and over had somewhat limited impact on the overall fertility rate. This is because the increases were relatively small for women in their twenties, who

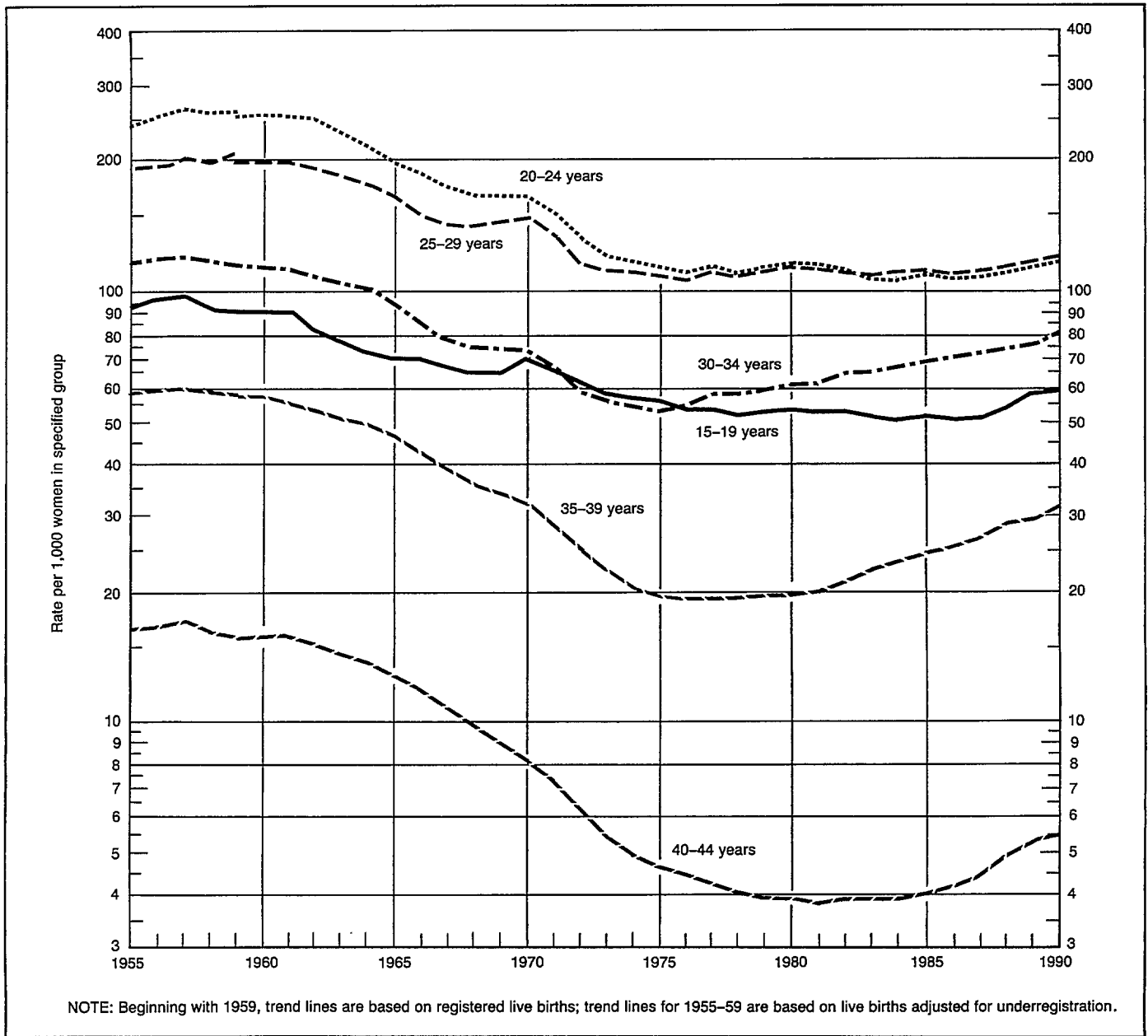


Figure 2. Birth rates by age of mother: United States 1955-90

accounted for 57 percent of births in 1990. Birth rates for women aged 20-24 and 25-29 years have risen somewhat in recent years, but the range for the rates has been relatively narrow, 106-120 since the early 1970's.

The increases in birth rates for women in their thirties reflect a continuation of a trend extending 15 years for these women to make up for previously postponed childbearing (1). The fact that many women were delaying childbearing is evident from changes in childlessness levels among women in their thirties. For example, among

women aged 30-34 years at the end of 1975, 16 percent had not had any children compared with 26 percent of women aged 30-34 at the end of 1990. Some of this increase is associated with the growing proportions of women who are unmarried (never married or previously married) (2). But even among married women aged 30-34 years, there has been a clear upward trend in childlessness, from 8 percent in 1975 to 14 percent in 1990 (3). Despite these relatively high levels of childlessness, however, survey data indicate that nearly two-thirds of

childless wives in their early thirties expect to have at least one child (3). This high level of expected future childbearing by currently childless wives suggests that the increases in birth rates, especially first birth rates, for women in their late thirties are likely to continue. A factor possibly limiting the realization of these expectations is fertility impairments. More than a third of childless wives aged 35-44 years in 1988 were reported to have impaired fertility (4).

Women who delay childbearing to relatively older ages continue to be

disproportionately well-educated. For example, 52 percent of women aged 35–39 years having their first child in 1990 were college graduates compared with 33 percent of first-time mothers aged 25–29 and only 7 percent of mothers aged 20–24.

The trend in first birth rates for older well-educated women was clearly upward between 1975 and 1985, just as these rates fell for younger well-educated women (1,5). Although comparable rates for 1990 cannot be computed because the appropriate population data are not available, estimates of the levels of these rates indicate that first birth rates for older well-educated women have continued to increase since 1985.

The continued rise in birth rates for teenagers is associated in part with the growing proportion of teenagers who are sexually experienced. According to the 1988 National Survey of Family Growth, conducted by the National Center for Health Statistics (NCHS), these proportions rose considerably during the 1980's (6). Among women aged 15 years, the increase was from 17 percent in 1980 to 26 percent in 1988, and among women aged 17 years, from 36 to 51 percent. The increases were continuous throughout the 1980's, but the rate of increase was somewhat greater between 1985 and 1988 than in the early 1980's. Although pregnancy rates for teenagers had been relatively stable during the early 1980's, these rates increased beginning about 1985; abortion rates changed little during this period (7). Thus all of the recent rise in teenage pregnancy rates is reflected in increasing birth rates.

Another important factor in the increase in birth rates for teenagers is the growing proportion of all teen births to Hispanic women during recent years. In 1990, 19 percent of all teen births were to Hispanic women (see later section in text and related tables). Hispanic women, who are predominantly white (97 percent), have much higher fertility than non-Hispanic white women at all ages, but most especially at ages under 20 years. For example, the birth rate for Hispanic teenagers 15–19 years was

100.3 per 1,000 in 1990 compared with 42.5 for non-Hispanic white teenagers and 54.8 for all non-Hispanic teenagers. Moreover, the Hispanic teen population has increased considerably in recent years while the non-Hispanic teen population has declined. For example, the number of Hispanic women aged 15–19 years increased 16 percent between 1985 and 1990 while the number of non-Hispanic teenagers fell 8 percent. In other words, the rapid rise in teen birth rates since the mid-1980's results in part from the combined impact of the much higher fertility of Hispanic compared with non-Hispanic teenagers and the growing proportion of teenagers who are Hispanic. It might be noted here that the much higher fertility of Hispanic women combined with the more rapid growth in the number of Hispanic women at every age compared with non-Hispanic women are probably also factors in the continued rise in birth rates for women in their thirties, especially the recent large increases in higher order birth rates (table 5). Fertility patterns among Hispanic women are discussed later in this report.

Although the increases in birth rates for teenagers were greater than for women in their twenties, the prime childbearing ages, the proportion of all births occurring to teenagers remained at 13 percent in 1990, as it was in 1988 and 1989, compared with 18–19 percent in the mid-1970's. This is because the teenage population has continued to fall, both in absolute numbers and as a proportion of the population in the childbearing ages. The number of women aged 20–24 years has fallen as well but more recently, since 1981. For example, the number of women aged 15–19 years declined from 10.6 million in 1976 to 8.7 million in 1990, an 18-percent reduction, while the total population of women aged 15–44 years rose 20 percent, from 48.7 million to 58.6 million (8,9). The 20-percent overall increase reflects the even greater rise, 43 percent, in the number of women aged 25–44 years. Women in that age group in 1990 are all members of the baby-boom generation, whereas

most of those aged 25–44 in 1976 were born in the low-birth years before and during World War II.

As the smaller numbers of women under 25 years of age replace the much larger group aged 25–44 over the next several years, the total number of births can be expected to decline unless there are more than compensating increases in the birth rates for women in the peak childbearing ages. In fact, the provisional estimate of the number of births in 1991 was 1 percent below the 1990 total, with a slight additional decline apparent for 1992.

Birth rates increased for all birth orders except for eighth and higher order births. Increases were 2 percent for first and second births and 4–6 percent for third through fifth order births (tables 3 and 5 and figure 3). This pattern of change was similar to that observed in 1988 and 1989. Rates by live-birth order were relatively stable during the mid-1980's. The modest annual increases of 2–3 percent in first birth rates since 1988 have been enough to bring the number of first births to another record level of 1,689,118 in the United States in 1990.

Increases in first birth rates were largest for teenagers 18–19 years (4 percent) and for women aged 30–44 years (5–11 percent). Second order rates rose considerably for teenagers (7 percent) and for women 30–44 years (4–8 percent). Between 1986, when teen birth rates began to rise, and 1990, the first birth rate for women aged 15–17 years increased 20 percent. The only other age groups for whom first birth rates rose as much since 1986 were for women aged 30–34 (also up 20 percent) and 35–39 years (up 43 percent). The rate for women aged 40–44 years also increased but it is still very low, 1.0 per 1,000.

Although first birth rates for teenagers have risen considerably in the latter part of the 1980's, the major changes in fertility over the entire decade were the result of very substantial increases in first birth rates for women in their thirties. The rate for women aged 30–34 years rose 66 percent, and the rate for women aged 35–39 increased 158 percent. Second-order birth

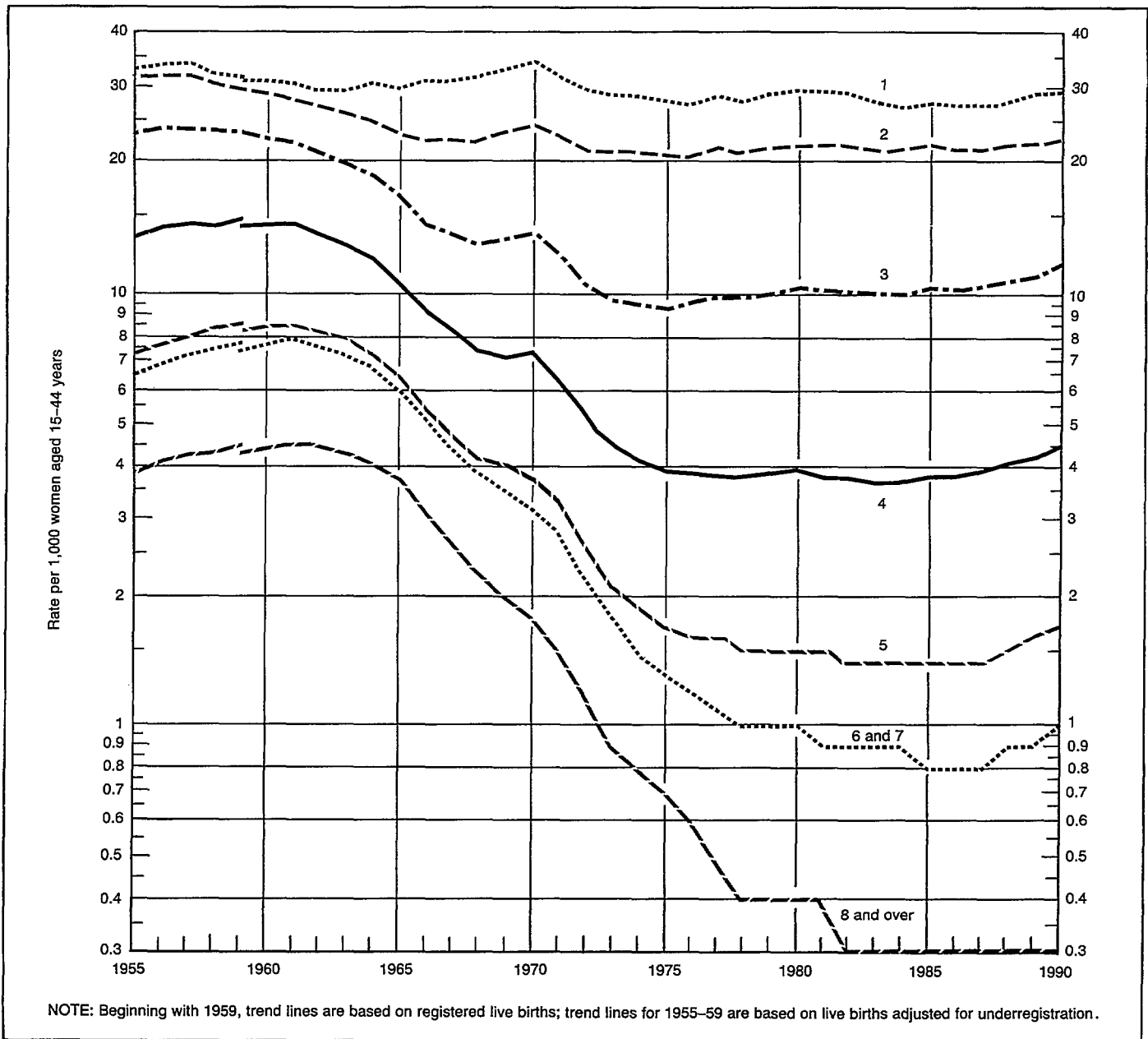


Figure 3. Birth rates by live-birth order: United States, 1955-90

rates also rose sharply, by 38-133 percent for women in their thirties.

Births by race—In 1990 as in 1989, birth data compiled by NCHS have been tabulated primarily by race of mother as reported directly on the birth certificate. In previous years, birth tabulations were by race of child, as determined by an algorithm based on information reported for the mother and father. Briefly, children of mixed-race parentage with one white parent were assigned the race of the other parent. When neither parent was white, the child was generally assigned

the father's race. Other details of current and former procedures concerning the tabulation of births by race are described in the Technical notes.

In general, changing the basis for tabulating birth data from race of child to race of mother results in more white births and fewer black births and births of other races. Therefore, population-based rates under the new classification tend to be higher for births to white mothers and lower for births to black mothers and to mothers of other races than they are when computed by race of child.

To facilitate continuity with previous years' data and analysis of current patterns, key tabulations and text analysis in this and other NCHS reports for 1989 and 1990 births show data for race of mother and for race of child. This will make it possible to distinguish the effects of this change in tabulation from real changes in the data. In this report, the discussions of changes in rates and various other measures between 1990 and previous years are based on rates and measures computed by race of mother. Text references to white births and white

mothers or black births and black mothers are therefore all based on tabulations by race of mother. Trend tabulations of births and birth rates by race of mother are not yet available; however, some rates for years prior to 1989 have been computed for analytic purposes for this report.

In 1990 the fertility rate for white women was 68.3 live births per 1,000 women aged 15–44 years, 3 percent higher than the 1989 rate (66.4) and 4 percent above the 1980 rate (65.6). The rate for black women was 86.8, just 1 percent higher than the 1989 rate (86.2) and 2 percent above the 1980 level (84.9).

Birth rates for white and black women increased between 1989 and 1990 for women in all age groups 15–44 years, but in each case the increase was greater for white women. Increases amounted to 5–7 percent for white women aged 15–19 and 30–44 years and 2–3 percent for white women in their twenties. By contrast, among black women, large increases were measured only in rates for those in their thirties (4–5 percent). Rates for black teenagers increased by 1 percent or less while rates for women in their twenties and early forties rose by 1–2 percent (tables 3 and 4).

Increases in birth rates by live-birth order were greater for white than for black women. Rates rose by 2–14 percent for white women. Rates for black women increased by 1–7 percent for second through sixth and seventh birth orders. The first-birth rate fell 2 percent.

Rates for first and second birth orders for white teenagers increased by 4–8 percent. Among black teenagers, first-birth rates fell 1–2 percent, but second- and third-birth rates rose 4–10 percent. Increases in order-specific birth rates for women in their thirties were sizable for both white and black women.

Total fertility rate—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. The total fertility rate is computed from age-specific birth rates and is, therefore, age adjusted; it assumes the same number of women in each age group.

The total fertility rate in 1990 was 2,081.0, 3 percent higher than the 1989 level of 2,014.0 and higher than it has been in nearly two decades (2,266.5 in 1971) (table 4). The continued increase in the total fertility rate since 1986 reflects the ongoing increases in most age-specific birth rates since the mid-1980's. The level of 2,081.0 is just 1 percent below the level considered necessary for a given generation to exactly replace itself in the population over the long run (about 2,100). The total fertility rate has been below replacement level since 1972.

The total fertility rate for white women increased 4 percent in 1990, to 2,003.0, while the rate for black women rose 2 percent, to 2,480.0.

Geographic division and State

The number of births increased in all nine geographic divisions in 1990. As in 1989 and 1988, the increase in 1990 was largest in the Pacific Division, 7 percent. The number of births rose 3 percent in the East North Central, South Atlantic, and Mountain Divisions, 2 percent in the Middle Atlantic, East South Central, and West South Central Divisions, and 1 percent in the New England and West North Central Divisions. (See table 6 for 1990 data.) Births increased in all but seven States, three of them in New England, two in the West North Central Division, and one each in the Mountain and the West South Central Divisions. Increases amounted to 10 percent in Nevada, 7 percent in California, 5–6 percent in Washington and Hawaii, 4 percent in Delaware and Oregon, and up to 3 percent in other States.

Fertility rates by race and Hispanic origin of the mother for 1990 have been computed for this report (table 6). The rates varied widely by State within each race group and by Hispanic origin. Rates for white women ranged from a low of 31.8 per

1,000 women aged 15–44 years for the District of Columbia to a high of 91.6 for Utah. Fertility rates for white women were also below 60 per 1,000 for Massachusetts and West Virginia. Rates of 75 per 1,000 or greater were measured for Alaska, Arizona, California, Nevada, and Texas. Rates for black women in States with at least 200 black births ranged from a low of 67.2 in West Virginia to a high of 110.3 in Wisconsin. Rates of 100 or higher also were reported for Florida, Hawaii, Massachusetts, Minnesota, and Rhode Island.

Rates for Hispanic women showed great variation. In States with at least 200 births to Hispanic women, rates ranged from 41.8 in Louisiana to 128.4 in California.

The high fertility rates for white women in Arizona, California, and Texas in particular are associated with the high proportions of white women who are Hispanic and the high fertility of Hispanic women in those States. For example, more than 40 percent of births to white mothers in Texas in 1990 were to Hispanic women. The Hispanic fertility rate was 108.5, 74 percent higher than the rate of 62.4 for white non-Hispanic women in Texas. (Rates for non-Hispanic women are not shown in this report.) The same pattern was observed for California, where the Hispanic fertility rate was 128.4, nearly twice the rate of 65.5 for white non-Hispanic women.

Sex ratio

The sex ratio at birth in 1990 was 1,050 males per 1,000 females, the same as in 1987–89 (table 7). There has been very little variation in this ratio in the last decade, ranging from 1,050 to 1,053. The ratio for births to white mothers was 1,054, up slightly from 1,053 in 1989. For 1990 the ratio for births to black mothers declined, to 1,029 from 1,031 in 1989.

Month of birth

In 10 of the 12 months of 1990, birth rates were higher than for the same month the previous year, unchanged for 1 month, and lower for

1 month. Fertility rates were higher for 10 months and lower for 2 months. As has been the pattern for many years, the peak months of occurrence of births for 1990 were July, August, and September (table 8). The underlying trends can be observed if the seasonal component is removed from the monthly birth and fertility rates. Unlike the two previous years, seasonally adjusted birth and fertility rates in the first half of 1990 tended to be somewhat higher than those in the last half.

Day of week of birth

The concentration of delivery of babies during the weekdays intensified for 1990. Births are occurring more frequently on Tuesdays through Fridays, with concomitant deficits occurring on weekends and holidays. Births also occur with less frequency on Mondays. (See table 9 for 1990 data.) The index of occurrence reveals the extent of this pattern. The index is defined as 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. Thus the average number of daily births is equivalent to an index of 100.0. The peak day of occurrence was Tuesday, with an index of 108.7, as it has been since 1980 when these data were first available. The index for Friday increased to 108.6 in 1990 from 108.1 in 1989, making it almost the same as Tuesday. The day of the week that had the fewest number of births was Sunday, with an index of 80.3. The differential between Tuesday and Sunday widened slightly for 1990, to 35 percent from 34 percent in 1989. In comparison, the difference for 1980 was only 22 percent.

The deficit of deliveries on weekdays, holidays, and Mondays is associated in part with the scheduling of cesarean deliveries, which comprised a high proportion of births (23.5 percent) in 1990 (10), many of which are scheduled in advance and are unlikely to be planned for weekends or holidays. In 1989 the index of occurrence for primary cesarean delivery was 73.1

for Sunday and 113.7 for Friday (11). For repeat cesarean delivery the difference is even more striking—39.5 for Sunday and 131.4 for Friday. As would be expected there is also a large weekend deficit for induced vaginal deliveries, many of which may also be scheduled (data not shown in this report). For all vaginal births, the differential between weekends and weekdays remains but is smaller (87.3 for Sunday and 106.3 for Tuesday in 1989).

Place of delivery

There was a very slight increase in the proportion of births (98.9 percent) reported to have occurred in hospitals in 1990 compared with the 1989 level of 98.8 percent. This has remained at or above 98.0 percent since 1966. The number of births occurring in nonhospital settings was 46,946 in 1990 compared with 47,214 in 1989. Less than 1 percent of all births occurred in freestanding birthing centers (0.4) and in residences (0.6) in 1990.

The majority of out-of-hospital births (59 percent) occurred in residences in 1990 as in 1989. However, births in freestanding birthing centers increased by 4 percent, from 30.2 percent of all out-of-hospital births in 1989 to 31.4 percent in 1990.

White mothers continue to be more likely than black mothers to give birth outside of a hospital. For 1990 the proportion of white women who delivered out of a hospital remained unchanged from the previous year, at 1.2 percent, but the proportion for black women declined, from 0.9 percent in 1989 to 0.8 percent in 1990. Among out-of-hospital births, the number of mothers utilizing birthing centers increased by 7 percent for black mothers and 4 percent for white mothers between 1989 and 1990, but a much larger proportion of out-of-hospital births to white mothers occurred in freestanding birthing centers (35.1 percent) than for black mothers (10.3 percent). Conversely, births occurred at residences at a higher rate for black mothers (73 percent) than for white mothers (57 percent).

Attendant at birth

The proportion of deliveries attended by doctors of medicine (M.D.'s) and doctors of osteopathy (D.O.'s) decreased in 1990, to 95.3 percent of all births compared with 95.7 percent reported in 1989 (table 10). This ratio has been declining slowly since a peak of 99.5 percent in the early seventies. Midwife-attended births continued to increase in 1990, to 3.9 percent of all births compared with 3.7 percent in 1989. Total midwife deliveries in 1990 were 5.5 times the number reported in 1975, with most of the increase (91 percent) in hospital deliveries. Whereas the number of births attended by midwives in nonhospital settings doubled between 1975 (9,727) and 1990 (20,996), the number of births attended by midwives in hospitals in 1990 (141,953) was 7 times that in 1975 (19,686).

The proportion of births attended by physicians (M.D.'s and D.O.'s) varied depending on place of delivery. In 1990 physicians performed 96.1 percent of all hospital deliveries, 40.6 percent of freestanding birthing center deliveries, and 21.6 percent of deliveries in residences. The proportion of physician-attended births that were attended by D.O.'s also varied, from 3.2 percent for births in hospital settings to 10.4 percent in nonhospital settings.

Between 1989 and 1990 the number of midwife deliveries increased more for black mothers (13.7 percent) than for white mothers (9.9 percent). Among hospital births, the proportions attended by midwives increased between 1989 and 1990 for both white and black mothers (2.9–3.2 percent for white mothers and 4.0–4.4 percent for black mothers). In contrast, the proportion of births in birthing centers attended by midwives decreased from 63.1 percent in 1989 to 58.2 percent in 1990, with a decline for births for white mothers (64.6–59.2 percent) and an increase among black mothers (33.3 and 36.1 percent).

Certified nurse midwives delivered 91.2 percent of all midwife-attended births in 1990 compared with 89.8 percent in 1989. There was little change in this proportion for births in hospitals between 1989 (98.0 percent) and 1990 (98.1 percent). However, certified

nurse midwives attended 66.8 percent of all midwife births in birthing centers, an increase from 63.2 percent in 1989. For births at residences this proportion was unchanged at 30.0 percent.

Women attended in hospital by midwives continue to be more likely to be young (under 20 years of age), black, unmarried, and less educated than those attended by a physician in hospital (data not shown in this report).

Age of father

The birth rate for men increased 2 percent in 1990, to 58.4 live births per 1,000 men aged 15–54 years. There has been little annual change in this rate since 1972; the rate has ranged from 53.2 to 59.1 during this period. Basic data are shown in tables 11 and 12.

Birth rates by age of father increased for all age groups 15–19 through 50–54 years in 1990. The largest increase was measured for men aged 15–19 for whom there was a 7-percent increase. This rate rose 31 percent between 1986 and 1990, even more than the rate for teenage women (up 19 percent). Rates increased 2–3 percent for men aged 20–44 years and by 4 percent for men aged 50–54 years. The rate for men aged 45–49 years rose 1 percent.

The birth rate for white men rose 2 percent in 1990, to 54.6. Rates for white men by age increased in a similar pattern as those for men of all races combined. The rate for black men increased 1 percent, to 84.9 in 1990. Rates by age for black men increased as well, but in most cases at a slower pace than rates for white men.

Weight at birth

Although the overall incidence of low birth weight in 1990 remained unchanged from the 1989 level of 7.0 percent, the substantial racial disparity narrowed slightly. There was a decline between 1989 and 1990 in the proportion of low-birth-weight babies (birth weight of less than 2,500 grams or 5½ pounds) to black mothers, from

13.5 percent to 13.3 percent, while the rate for white mothers remained stable at 5.7 percent. The percent low birth weight among births to white mothers has remained steady throughout the 1980's, between 5.6 and 5.7 percent, but for births to black mothers this proportion has increased, from 12.7 in 1980 to 13.3 in 1990. The reduction in low birth weight for births to black mothers from the 1989 level marks the first decline since 1984. Most of the decrease was for mothers aged 20–24 (from 12.9 to 12.3 percent) and 25–29 years (from 13.5 to 13.1 percent). (See table 13 for basic data.)

The percent of very low-birth-weight births (less than 1,500 grams, or 3 pounds 4 ounces)—infants at the greatest risk of infant mortality and childhood morbidity—was unchanged from the 1989 rate of 1.3 percent. The overall incidence of very low birth weight has increased by about 10 percent since the late 1970's, reflecting the steady rise in the proportion of preterm births. The vast majority of very low-birth-weight babies are born preterm (95 percent in 1990). In 1990 as in 1989, births to black mothers were three times as likely as births to white mothers to have very low birth weight (2.9 percent and 1.0 percent, respectively).

Between 1989 and 1990, the incidence of low birth weight for births to white mothers increased by 1 percent for the youngest age group (under 15 years) and by 2 percent for births to mothers aged 35–39 years; decreased by 2–7 percent for births to mothers aged 30–34, 40–44, and 45–49 years; and remained unchanged for other ages. Among births to black mothers, there were reductions in low-birth-weight levels of 5 percent or less for mothers under 35 years and mothers aged 45–49 and increases of 2–4 percent for mothers aged 35–44 years. Overall, the highest risk of low birth weight is for babies born to mothers under 15 years of age and to mothers aged 45 and over; the lowest risk is for infants of mothers aged 25–34 years.

The racial differential in low birth weight is associated with the much higher incidence of preterm births (less than 37 weeks of gestation) among black mothers, 18.8 percent

compared with 8.9 percent for white mothers in 1990. Preterm births are much more likely to be of low birth weight (40.6 percent) than term births (3.1 percent). Proportions of low birth weight among preterm births are similar for white (38.9 percent) and black mothers (45.5 percent), but for term births the risk of low birth weight is twice as high for black mothers as for white mothers. In 1990, 2.5 percent of term births to white mothers were low birth weight compared with 5.9 percent for term births to black mothers. For postterm births the proportions were 1.7 percent for white mothers and 4.3 percent for black mothers.

The overall median birth weight for infants born in 1990 was 3,370 grams (7 pounds 7 ounces), unchanged since 1984. The median for births to white mothers was the same as in 1989 (3,410 grams). For births to black mothers the median increased from 3,160 in 1989 to 3,170 in 1990.

The numbers and proportions of low-birth-weight babies for each State are shown in table 14. Between 1989 and 1990, levels of low birth weight among births to white mothers increased in 21 States and the District of Columbia and declined in 16 States. There were no changes reported for 13 States. Among the 36 States and the District of Columbia with at least 1,000 births to black mothers in 1990, the proportions of low-birth-weight births to black mothers increased in 12 States, fell in 21 States and the District of Columbia, and did not change in 3 States.

Multiple births

Live births in multiple deliveries totaled 96,893 for 1990, a 4-percent increase over the 92,916 reported in 1989 compared with a 3-percent increase in single births (table 15). Multiple births include twins, triplets, quadruplets, and higher order plural births. Although each year the vast majority of multiple births are twins, this proportion continues to decline. In 1990 twin births comprised 96.9 percent of all multiple births compared with 98.1 percent in 1980.

The ratio of multiple births per 1,000 total live births was 23.3 in 1990 compared with 23.0 in 1989. Ratios have increased steadily since a low of 18.4 in 1973.

Multiple birth ratios vary in a distinctive pattern according to age of mother. The highest ratio was for mothers aged 35–39 years, 31.8 in 1990 compared with the low of 10.0 for births to mothers under 15 years of age. These differences by age were observed for both white and black mothers, and except for the age group 45–49 years, the age-specific multiple birth ratios for black births were higher than those for white births.

Multiple birth ratios have consistently been higher for black births than for white births, but the racial differential narrowed slightly between 1989 and 1990 as the ratio for births to white mothers increased at a greater rate (from 22.5 to 22.9) than for black mothers (from 26.9 to 27.0). Conversely, the ratio of higher order multiple births, which relates the number of triplets and other higher order multiple births to 100,000 live births, was substantially higher for white mothers (80.2) than for black mothers (46.9). This ratio increased for both races from the previous year, when the ratios were 77.8 for white mothers and 38.9 for black mothers. For 1990 the ratio for all higher order multiple births was 72.8, an increase of 5 percent over the previous year (69.2).

The number of babies born in triplet and higher order plural deliveries continued to rise in 1990, to a total of 3,028, an 8-percent increase over the 1989 level of 2,798. These births accounted for 3.1 percent of all multiple births in 1990 compared with 3.0 percent in 1989. This increase is due entirely to a rise in the number of triplet births, which increased by 12 percent, from 2,529 births in 1989 to 2,830 births in 1990, comprising 2.9 percent of all multiple births compared with 2.7 percent for the previous year. (In contrast, twin births rose by 4 percent between 1989 and 1990.) Births in quadruplet deliveries declined, from 229 in 1989 to 185 in 1990. Quintuplet and higher order births also declined, from 40 births in

1989 to only 13 births in 1990. (Data not shown in table 15.)

The lower birth weights and elevated rates of prematurity of multiple births, when compared with single births, are highly associated with their elevated infant mortality (12). For 1990 more than half (51.9 percent) of all plural births were of low birth weight compared with 5.9 percent of single births. Similarly, 49.1 percent of all multiple births in 1990 were born preterm compared with 9.7 percent of single births. (Data not shown in this report.)

The increasing incidence of multiple births in recent years, and in particular of higher order multiple births, has been associated with the delay of childbearing and increased use of fertility-enhancing drugs among older mothers. For white mothers most of the increase has been associated with the expanded use of fertility drugs, while the increase among black mothers has been attributed to a shift in the age composition of women in their childbearing ages (13).

Births to unmarried women

Increases averaging 4–7 percent were reported for the three principal measures of childbearing by unmarried women in 1990, the sixth successive year of such increases. The number of births to unmarried mothers reached a record level of 1,165,384 in 1990, 7 percent more than in 1989. The number of nonmarital births has increased 75 percent since 1980 (665,747). The birth rate per 1,000 unmarried women increased 5 percent, to 43.8 in 1990. This rate rose 49 percent since 1980 (29.4). Because of the much greater increase in births and the birth rate for unmarried women (5–7 percent) than for married women (1–2 percent) between 1989 and 1990, the proportion of all births occurring to unmarried women continued to rise, reaching 28.0 percent in 1990. In 1980, 18.4 percent of births were to unmarried mothers. (Basic data for unmarried women are shown in tables 16 and 17.)

Nonmarital childbearing increased more for white women than for

black women over the last decade. The number of births to unmarried white women totaled 669,698 in 1990, 9 percent more than in 1989 (613,543), and more than twice as many as in 1980 (328,984). The number of nonmarital births to black women in 1990 was 455,304, 3 percent more than in 1989 (442,395) and 43 percent more than in 1980 (318,799). The proportions of all births that were to unmarried women rose for both race groups, to 20.4 percent for white births and 66.5 percent for black births.

The birth rate for white unmarried women was 32.9 per 1,000 in 1990, 9 percent higher than the rate in 1989 (30.2) and 82 percent higher than in 1980 (18.1). The birth rate for black unmarried women, while much higher, changed much less during these years. The rate was 90.5 in 1990, about the same as the rate of 90.7 in 1989, and 12 percent higher than the rate of 81.1 in 1980. As a consequence of the greater increase in rates for white women than for black women, the racial differential in nonmarital birth rates declined considerably during the 1980's. The rate for black women was 4.5 times the rate for white women in 1980; by 1990, this differential fell to 2.8.

Increases in nonmarital birth rates were substantial for women in all age groups, except young teenagers 15–17 years. Rates rose by 6–8 percent for women aged 18–44 years. The rate for teenagers 15–17 years rose 3 percent. Not only have the age-specific rates continued to rise virtually without interruption since the mid-1970's, the rates measured for 1990 in all but one instance are the highest ever observed in the 50 years for which national rates are available. (The one exception is the rate for women aged 35–39 years, which was 17.3 in 1990 compared with 17.4 in 1965, the highest level ever for that rate.) Birth rates were highest for women in age groups 18–24 years, 60.7–65.1 per 1,000.

Increases in birth rates for white unmarried women were substantial in every age group, amounting to 10 percent or more for women in age groups 18–44 years. The rate for white teenagers 15–17 years rose 6 percent.

Much smaller increases were observed for black women, 2 percent in each age group 18–44 years. The rate for young black teenagers fell slightly in 1990. This pattern of much greater increases in rates for white than for black women has been observed for more than a decade.

Although increases in age-specific birth rates were widespread in 1990, it is the rise in the rates for women in their twenties and older, particularly those aged 25–39 years, that has had the greatest impact on nonmarital childbearing since 1980. This is because the increases in rates of 65–78 percent during the 1980's for women aged 25–39 years have coincided with comparably large increases (40–89 percent) in the number of unmarried women in those age groups. The number of unmarried women aged 15–24 years by contrast has actually fallen, by 6 percent. Therefore the increases in the rates for unmarried teenagers and women in their early twenties have had lesser effect. These divergent patterns have resulted in substantially more births to older unmarried women and an increasing proportion of all nonmarital births occurring to women 25 years of age and over, 34 percent in 1990 compared with 24 percent in 1980.

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 are shown in table 18. With only two exceptions (Delaware and Texas), the ratios per 1,000 total live births in each State were higher in 1990 than in 1989. This was the case for births to white mothers as well, with only one exception (Texas). The ratios for births to black unmarried mothers increased in all but six States (Arizona, Delaware, Iowa, Massachusetts, Rhode Island, and Texas).

Interval since last live birth

The interval since the mother's 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 (table 19).

There has been virtually no change over the last several years in

the proportions of births occurring within various intervals following the mother's previous live birth. In 1990 as in 1986–89, 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.

A substantial racial differential has been observed for many years in the occurrence of births within very short intervals. In 1990, 12 percent of births to white mothers and 20 percent of births to black mothers occurred within 1½ years of the mother's previous birth.

Closely spaced births tend to be at disproportionate risk of low birth weight and other health complications (14). In many cases this is because closely spaced births tend to occur more frequently to young women and to black women. For example, while 15 percent of all second births were to black mothers, 19 percent of all closely spaced second births were to black women. Babies born to teenage and black mothers are at greatly elevated risk of low birth weight. (See earlier section of this report.)

Educational attainment of mother and father

In 1990 as in 1989, educational attainment of the parents was reported on the birth certificates of 48 States, the District of Columbia, and New York City. Data were not available for the remainder of New York State and Washington. There was a slight decline in the proportion of mothers reported to have been high school graduates, 76 percent in 1990 compared with 77 percent in 1989. (See tables 20 and 21 for basic data.) The proportion of fathers who had completed high school remained unchanged, at 82 percent. This proportion for fathers may be overstated because it is based largely on information for births to married parents. When the mother is unmarried, information on the father is often not reported on the birth certificate. Because nonmarital births tend to be disproportionately to young mothers, it is likely that the fathers of these babies are young as well, and have had less opportunity to pursue their education.

In 1990, 17 percent of mothers giving birth were college graduates, the same level as in 1989. One third or more of mothers aged 30 years and over were college graduates. These proportions were even higher for first-time mothers, 46 percent of mothers aged 30–34 and 52 percent of mothers aged 35–39 years.

There was no change in the proportions of high school and college graduates among white and black mothers in 1990. Among white mothers, 78 percent had completed high school and 19 percent were college graduates. Among black mothers, 70 percent had completed high school and 7 percent were college graduates. The median years of school completed by white mothers was 12.7 years, and by black mothers, 12.5 years.

Births to Hispanic mothers

Hispanic origin of the parents was reported on the birth certificates of 48 States and the District of Columbia in 1990, an increase of 1 State (Louisiana) compared with 1989. Only New Hampshire and Oklahoma did not report this information in 1990. According to data from the 1990 census, 99.6 percent of the Hispanic population resides in the 1990 reporting area (9).

The text and tabulations (tables 22–26) in this report present data for births classified by Hispanic origin of the mother. Origin of the mother was very well reported in 1990; it was missing for only 1 percent of the birth records. (See table 22 for basic data.)

The fertility of the Hispanic population, in particular that of Mexican women, continues to be the highest of any ethnic or racial group in the United States for which fertility can be reliably measured. In 1990 the fertility rate for Hispanic women as a group was 107.7 births per 1,000 women aged 15–44 years, 61 percent higher than the rate for non-Hispanic women, 67.1 (table 24). Rates for white and black non-Hispanic women for 1990 were both substantially below the rate for Hispanic women, 62.8 and 89.0, respectively.

Among the Hispanic groups, the fertility of Mexican women was highest

(118.9), followed by "other Hispanic" women (102.7), Puerto Rican women (82.9), and Cuban women (52.6). The relationship of the rates in 1990 is similar to that observed in 1989.

The number of Hispanic origin births totaled 595,073 in 1990. Of these, 65 percent were to Mexican women, 14 percent to Central and South American women, 10 percent to Puerto Rican women, and 2 percent were to Cuban women. These proportions were about the same as in 1989, except for an increased proportion of Mexican births, up from 61 to 65 percent.

The Hispanic population is highly concentrated geographically. In 1990, 41 percent of Hispanic births were to California residents and 20 percent were to Texas residents. Other States with relatively large proportions of Hispanic births were New York (9 percent), Florida (5 percent), Illinois (4 percent), Arizona and New Jersey (3 percent each) and New Mexico (2 percent) (table 22). These proportions have been observed for several years.

In 1990, 97.1 percent of Hispanic mothers were reported to be white, 1.7 percent were black, and 1.2 percent were of other races (table 23). There has been little change in these proportions since 1978 when birth data for the Hispanic population first became available.

Birth rates by age, fertility rates, and total fertility rates by Hispanic origin are shown in table 24. (Fertility rates by State are shown in table 6.) These rates, based on 1990 census counts, indicate clearly that the fertility of Hispanic women exceeds that of white and black non-Hispanic women in every age group for women aged 20 years and over. The differential between Hispanic and non-Hispanic age-specific rates is larger as age of mother advances. For example, the rate for Hispanic women aged 25–29 years was 153.0 per 1,000, 31 percent higher than the rate of 116.5 for non-Hispanic women. By ages 35–39 years, the rate for Hispanic women (45.3) was 48 percent higher than the rate for non-Hispanic women (30.7).

The one exception to the pattern of higher fertility for Hispanic compared with non-Hispanic women is in the teenage years. Although Hispanic teenagers have much higher fertility than non-Hispanic teenagers as a group, 100.3 compared with 54.8, this is not the case when rates for non-Hispanic teenagers are examined for white and black women separately. The teenage birth rate was highest for black non-Hispanic teenagers, 116.2 per 1,000 aged 15–19 years compared with 100.3 for Hispanic teenagers. The rate for Hispanic teenagers, however, was still substantially higher than that for white non-Hispanic teenagers, 42.5.

In the section on births and birth rates earlier in this report, it was noted that teen birth rates, in particular those for white women, have been affected by the growing Hispanic teenage population and the high fertility of Hispanic teenagers. This is clarified when the rates for all white teenagers (50.8) and white non-Hispanic teenagers (42.5) are compared. It is evident that the much higher fertility of Hispanic teenagers is an important factor in the overall level of the birth rate for white teenagers.

Total fertility rates indicate the potential impact of current fertility levels on completed family size. The elevated total fertility rates of Hispanic women, especially Mexican and "other Hispanic" women, clearly reflect the high age-specific birth rates for these women. The rate of 3,214.0 for Mexican women was 74 percent greater than the rate of 1,850.5 for white non-Hispanic women and 26 percent higher than the rate of 2,547.5 for black non-Hispanic women. Rates for other Hispanic groups ranged from a low of 1,459.5 for Cuban women to a high of 2,877.0 for "other Hispanic" women (table 24).

In 1990, 17 percent of all Hispanic births and 18 percent of Mexican births were to mothers under 20 years of age. This proportion ranged from 8 to 9 percent for Cuban and Central and South American mothers to 22 percent for Puerto Rican mothers. (Basic data are shown in table 25.) The very high fertility of all Hispanic

women (except Cuban women) throughout the childbearing years is a key factor in accounting for the greater proportion of fourth and higher order births to Hispanic mothers (15 percent) compared with non-Hispanic mothers (10 percent) (table 26). The variation in this measure of childbearing largely mirrors the variations in proportions of teen births and in levels of age-specific birth rates.

A summary of various maternal demographic and infant health characteristics for Hispanic and non-Hispanic births is presented in table 26. There has been very little change in the levels of these characteristics over the 10–12-year period for which the data have been available. Hispanic women as a group are more likely than non-Hispanic women to have had their fourth or higher order child, to have completed fewer than 12 years of schooling, and to have had late or no prenatal care. Some of the educational differential can be attributed to the high proportion of Hispanic mothers who were born outside the United States, 61 percent overall. Presumably many foreign-born Hispanic women have not been exposed to a universal educational system. Other important differentials in childbearing characteristics have been documented for U.S.- and foreign-born Hispanic mothers (15,16). In spite of the less advantageous status of many Hispanic women with respect to educational attainment and receipt of prenatal care, Hispanic infants as a group continue to have relatively favorable levels of low birth weight, an average of 6.1 percent compared with 5.6 percent for white non-Hispanic infants and 13.3 percent for black non-Hispanic infants. The much lower incidence of smoking by Hispanic mothers may partly account for the favorable low-birth-weight levels (11). The maternal and infant characteristics included in table 26 are shown for the Mexican, Puerto Rican, Cuban, Central and South American, and Other and unknown Hispanic populations separately. These data demonstrate clearly the heterogeneity of the Hispanic population and the importance of differentiating among the groups in analyzing fertility patterns.

Births of other racial and national origin groups

The number of Chinese, Hawaiian, Filipino, and Other Asian or Pacific Islander births increased by 5–9 percent between 1989 and 1990 while the number of American Indian and Japanese births decreased by 1 percent or less. (Data for 1990 are shown in table 27.) Included in the classification "Other Asian or Pacific Islander" are births to Asian Indian, Cambodian, Korean, Laotian, Thai, and Vietnamese mothers.

The relatively high incidence of teenage childbearing (the proportion of births under 20 years of age) among American Indian mothers (20 percent) declined by less than 1 percent between 1989 and 1990, but births to Hawaiian teen mothers increased by 7 percent, to 18 percent of all births. Increases in teenage childbearing ranged from 2 to 21 percent, but the levels remained very low among Chinese (1 percent), Japanese (3 percent), and Filipino and other Asian or Pacific Islander mothers (6 percent). In contrast, the proportion of births to women aged 30 years and over was high among Chinese (58 percent), Japanese (59 percent), Filipino (46 percent), and other Asian mothers (39 percent), while the ratios for American Indian (21 percent) and Hawaiian mothers (22 percent) were relatively low, reflecting increases between 1989 and 1990 of up to 5 percent for all groups except Filipino, which decreased by less than 1 percent. Childbearing patterns among these groups have remained stable for several years.

Levels of low birth weight for births to mothers of races other than white and black ranged from 4.7 percent (Chinese) to 7.3 percent (Filipino) (table 29). In comparison, the rate of low birth weight for white births was 5.7 percent and for black births, 13.3 percent. Between 1989 and 1990 the incidence of low birth weight declined between 1 percent (Hawaiian) and 7 percent (Japanese) among all groups except Filipino and Other Asian, where no change was noted. For 1990 the proportion of very low

birth weight varied from 0.5 percent (Chinese) to 1.0 percent (American Indian and Filipino). These rates compare favorably with those for white mothers (1.0 percent) and black mothers (2.9 percent). Except for births to American Indian and Hawaiian mothers, the relatively favorable proportions of low-weight births are associated with the comparatively few births to teenage mothers, who are at increased risk of low birth weight.

Beginning with 1990, birth rates are available for American Indian and Asian or Pacific Islander births as a group (table 28). Included in the latter category are many disparate ethnic groups, including Chinese, Japanese, Hawaiian, Filipino, and Other Asian or Pacific Islander (from third generation Japanese American mothers to newly arrived Laotian mothers), and as a result, its analytic value may be limited. The 1990 birth rates and fertility rates (defined as the number of live births per 1,000 women aged 15–44 years) for American Indian (18.9 and 76.2) and Asian or Pacific Islander (19.0 and 69.6) women are quite comparable, but analysis of the age-specific rates of the two groups reveal very distinct fertility patterns (table 28). The age-specific birth rates for American Indian women reveal high fertility at the younger ages and comparatively low fertility at the older ages (81.1 for ages 15–19 years and 148.7 for ages 20–24 compared with 27.5 for ages 35–39). The analogous rates for Asian or Pacific Islander women are 26.4, 79.2, and 49.6, respectively. The American Indian age-specific rates generally are lower than, but largely mirror, those for black mothers.

In direct contrast, age-specific birth rates for Asian or Pacific Islanders are lower than those for American Indian and white and black women for all younger age groups up to ages 25–29 years, at which point Asian or Pacific Islander birth rates exceed those of the other races and continue to do so for each age group throughout the childbearing years. The higher age-specific birth rates for Asian or Pacific Islander older mothers reflects, at least in part, delayed childbearing resulting from

the disruption associated with immigration (17,18).

Month of pregnancy prenatal care began

The proportion of mothers who began prenatal care in the first trimester of pregnancy increased slightly from 1989 to 1990, from 75 percent to 76 percent. Except for 2 years (1984 and 1989), this proportion has been stable at 76 percent since 1979. The percent of mothers who began care in the third trimester or received no care at all was unchanged from the 6 percent reported since 1983. (See table 30 for 1990 data.)

The substantial racial differential in prenatal care persists. The percent of white mothers receiving care in the first trimester of pregnancy was 79 percent, the same as the previous year. The proportion of black mothers beginning care during this critical period rose slightly, from 60 percent in 1989 to 61 percent in 1990. Overall, in 1990, 11 percent of black mothers and 5 percent of white mothers received late or no prenatal care. These proportions represent a decrease for black mothers from the 12 percent reported in 1989 and no change for white mothers. As in previous years, unmarried mothers are much more likely than their married counterparts to receive inadequate or no care, 4 percent of all married mothers compared with 13 percent of unmarried mothers. For white mothers these proportions were 3 percent for married and 12 percent for unmarried mothers. Among black mothers, 6 percent of married mothers and 14 percent of unmarried mothers received late or no care.

As in the last several years, timing of prenatal care improved for mothers under 20 and 40 years of age and over between 1989 and 1990. Still, only 54.7 percent of mothers under 20 years of age began care in the first 3 months of pregnancy. This proportion rose steadily, to a peak of 85.3 percent for women aged 30–34 and fell to 78.6 percent for women aged 40–49 years.

A review of prenatal care data by State reveals wide variation among States in the percent of mothers

receiving late or no care. For white mothers only 1 State reported that at least 10 percent of mothers received late or no care, whereas for the 36 States and the District of Columbia with at least 1,000 births to black mothers, 24 States reported that 10 percent or more of black mothers received late or no care. Between 1989 and 1990, 12 States and the District of Columbia showed increases, 34 States showed decreases, and 4 States showed no change in the proportion of white mothers who received late or no care. Among the 36 States and the District of Columbia with at least 1,000 births to black mothers in 1990, 13 States and the District of Columbia reported increases, 22 States showed reductions, and there was no change in 1 State.

Number of prenatal visits

In 1990 the median number of visits made to obtain prenatal care by women who received any prenatal care was 12.0. The overall median number of visits has increased slowly, from 11.4 in 1982 to 12.0 in 1987, but has shown no change since that year. There was no change in the median number of visits for either white (12.2) or black mothers (10.6) from the previous year. (Summary data for 1990 are presented in table 31.)

As would be expected, the earlier prenatal care begins, the greater the number of visits. On average, there were 12.5 visits for mothers who began care in the first trimester, 9.2 visits for mothers who began care in the second trimester, and 5.0 visits for mothers who began care in the third trimester. These medians have been generally rising since 1980, when the comparable figures were 12.1, 8.7, and 4.7, respectively.

Racial differences are reduced substantially when median visits are analyzed by trimester or by marital status. In 1990 white mothers who began care in the first trimester had an average of 12.5 visits compared with 12.2 for black mothers. Married white

mothers had 12.3 median visits compared with 11.9 for married black mothers, and the median number of visits for unmarried white mothers was 10.6 compared with 10.2 for unmarried black mothers.

Period of gestation

The length of gestation is measured from the first day of the mother's last normal menstrual period (LMP) to the date of birth. When the length of gestation as computed from the LMP is inconsistent with the reported birth weight or is incompletely reported, the "clinical estimate of gestation"—an item added to the 1989 revision of the birth certificate—is used. The proportion of babies born preterm, that is, before 37 weeks of gestation, remained unchanged from the 1989 level of 10.6 percent. This proportion generally has been increasing in the last decade; the 1990 percent represents a 12-percent rise over the 1982 level of 9.5 percent. The increase in preterm births is seen for both white and black mothers. (Data for 1990 are shown in table 32.)

The proportion of preterm births among white mothers increased slightly in 1990, to 8.9 percent from 8.8 percent in 1989. The percent of preterm births for black mothers decreased slightly, from 18.9 in 1989 to 18.8 in 1990, slightly narrowing the substantial racial disparity.

Apgar score

The Apgar score, originated by the late physician Virginia Apgar, is a numerical expression of the physical condition of an infant at birth. The score is a composite evaluation of 5 factors—the infant's heart rate, respiratory effort, muscle tone, irritability, and color—each of which is assigned a value from 0 to 2. The overall score is the sum of the 5 values, with a score of 10 being optimum. The 1-minute Apgar score is an indication of the infant's condition at birth, whereas the 5-minute score is considered a better assessment of the infant's long-term

health status and survival chances. In 1990 the Apgar score at both 1 and 5 minutes after birth were reported by 47 States and the District of Columbia. (Data for 1990 are shown in tables 33 and 34.)

In 1990 the proportion of babies with high 1-minute Apgar scores of 9–10 increased for the fourth consecutive year, from 42.3 percent in 1989 to 42.7 percent. Between 1989 and 1990, this proportion rose by 1 percent for births to both white and black mothers, but as in the previous year the proportion of high 1-minute scores was slightly larger for births to black mothers (44.4) than to white mothers (42.2). There was little overall change between 1989 (2.3 percent) and 1990 (2.2 percent) in the level of severely depressed births (scores of 0–3). Severely depressed scores to black births decreased (3.8–3.6 percent), with no change reported for births to white mothers (1.9). Births to black mothers continue to be almost twice as likely to have severely depressed scores as births to white mothers.

Five-minute scores of 9–10 were reported for 89.6 percent of births in 1990, an increase over the level of 89.1 percent reported for 1989. In contrast to 1-minute scores, births to white mothers were more likely than births to black mothers to have scores of 9 or 10, 90.1 percent compared with 87.3 percent. Similar to the 1-minute score, however, severely depressed scores were more prevalent for births to black mothers (1.0 percent) than for births to white mothers (0.4 percent).

Between 1989 and 1990, the proportion of low 5-minute scores (scores less than 7) decreased slightly for each age group except the youngest (under 15 years) and the oldest (45–49 years). As in previous years, mothers under 15 years of age and mothers in their late forties are more likely to have low Apgar scores (3.2–3.3 percent) than mothers aged 25–29 and 30–34 years (1.3 percent). The incidence of low scores was higher for births to black mothers than for births to white mothers, regardless of the mother's age.

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List of tables

1. Live births, birth rates, and fertility rates, by race: United States, specified years 1940-55 and each year 1960-90. 17
2. Live births by age of mother and live-birth order, by race of mother and of child: United States, 1990 . . 18
3. Birth rates by age of mother and live-birth order, by race of mother and of child: United States, 1990 . . 20
4. Total fertility rates and birth rates by age of mother and race: United States, 1970-90 21
5. Birth rates by live-birth order and race: United States, 1970 and 1980-90. 23
6. Live births by race of mother and of child, birth rates, and fertility rates by race and Hispanic origin of mother: United States, each division and State, 1990 24
7. Live births by sex and sex ratio, by race: United States, 1980-90. 25
8. Live births by race of mother and observed and seasonally adjusted birth and fertility rates, by month: United States, 1990. 25
9. Average number of live births and index of occurrence, by day of week: United States, 1990. 26
10. Live births by attendant, place of delivery, and race of mother and of child: United States, 1990. 27
11. Live births by age of father and mother and race of father and of child: United States, 1990. 28
12. Birth rates by age of father and race: United States, 1980-90 29
13. Number and percent low birth weight and live births by birth weight, age of mother, and race of mother and of child: United States, 1990 30
14. Number and percent of births of low birth weight, by race of mother and of child: United States and each State, 1990 32
15. Live births by plurality of birth and age of mother, by race of mother: United States, 1990. 33
16. Numbers, rates, and ratios of births to unmarried women by age of mother, by race of mother and of child: United States, 1990. 33
17. Birth rates for unmarried women by age of mother and race: United States, 1970, 1975, and 1980-90 . . 34
18. Number and ratio of births to unmarried women, by race of mother and of child: United States and each State, 1990. 36
19. Live births by interval since last live birth, live-birth order, and race of mother: United States, 1990. 37
20. Live births by educational attainment of mother and of father and race: Total of 48 reporting States, the District of Columbia, and New York City, 1990. 37
21. Live births by educational attainment of mother and age of mother, by race of mother and of child: Total of 48 reporting States, the District of Columbia, and New York City, 1990. 38
22. Live births by Hispanic origin of mother and by race of mother for mothers of non-Hispanic origin: Total of 48 reporting States, the District of Columbia, and each State, 1990 39
23. Number and percent distribution of live births by race of mother and of child, according to Hispanic origin of mother: Total of 48 reporting States and the District of Columbia, 1990 40
24. Birth and fertility rates, total fertility rates, and birth rates by age of mother, by Hispanic origin of mother, and by race of mother for mothers of non-Hispanic origin: Total of 48 reporting States and the District of Columbia, 1990 40
25. Live births by age and Hispanic origin of mother and by race of mother for mothers of non-Hispanic origin: Total of 48 reporting States and the District of Columbia, 1990. 41
26. Percent of births with selected characteristics, by Hispanic origin of mother and by race of mother for mothers of non-Hispanic origin: Total of 48 reporting States and the District of Columbia, 1990. 41
27. Live births by age of mother, by specified race of mother and of child: United States, 1990. 42
28. Birth rates by age and specified race of mother: United States, 1990. . . 42
29. Live births by birth weight and percent low birth weight, by specified race of mother and of child: United States, 1990. 43
30. Live births by month of pregnancy prenatal care began and age of mother, by race of mother and of child: United States, 1990. 44
31. Live births by month of pregnancy prenatal care began and number of prenatal visits, by race of mother and of child: United States, 1990 . . 45
32. Live births by period of gestation and birth weight, by race of mother and of child: United States, 1990 . . 46
33. Live births by 1- and 5-minute Apgar scores, by race of mother and of child: Total of 47 reporting States and the District of Columbia, 1990. 47
34. Live births by 5-minute Apgar score and age of mother, by race of mother and of child: Total of 47 reporting States and the District of Columbia, 1990. 48

Symbols

- Data not available
 - . . . Category not applicable
 - Quantity zero
 - 0.0 Quantity more than zero but less than 0.05
 - * Figure does not meet standard of reliability or precision (estimate is based on fewer than 20 births in numerator or denominator)
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Table 1. Live births, birth rates, and fertility rates, by race: United States, specified years 1940–55 and each year 1960–90

[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												
Race of mother:												
1990	4,158,212	3,290,273	867,939	684,336	16.7	15.8	21.7	22.4	70.9	68.3	83.2	86.8
1989	4,040,958	3,192,355	848,603	673,124	16.4	15.4	21.6	22.3	69.2	66.4	82.7	86.2
Race of child:												
1990	4,158,212	3,225,343	932,869	724,576	16.7	15.5	23.3	23.8	70.9	66.9	89.4	91.9
1989	4,040,958	3,131,991	908,967	709,395	16.4	15.1	23.1	23.5	69.2	65.1	88.6	90.8
1988	3,909,510	3,046,162	863,348	671,976	16.0	14.8	22.5	22.6	67.3	63.4	85.9	87.0
1987	3,809,394	2,992,488	816,906	641,567	15.7	14.6	21.8	21.9	65.8	62.3	83.1	84.1
1986	3,756,547	2,970,439	786,108	621,221	15.6	14.6	21.4	21.5	65.4	62.1	81.9	82.6
1985	3,760,561	2,991,373	769,188	608,193	15.8	14.8	21.4	21.3	66.3	63.1	82.3	82.4
1984 ¹	3,669,141	2,923,502	745,639	592,745	15.6	14.6	21.2	21.0	65.5	62.3	81.8	81.5
1983 ¹	3,638,933	2,904,250	734,683	586,027	15.6	14.6	21.4	21.0	65.7	62.5	82.7	82.0
1982 ¹	3,680,537	2,942,054	738,483	592,641	15.9	14.9	22.0	21.5	67.3	63.9	85.3	84.3
1981 ¹	3,629,238	2,908,669	720,569	587,797	15.8	14.8	21.9	21.7	67.3	63.9	85.7	85.3
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												
Race of child:												
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.

NOTE: Rates for 1981–89 have been revised; see Technical notes.

Table 2. Live births by age of mother and live-birth order, and race of mother and of child: United States, 1990

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

Live-birth order and race	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	4,158,212	11,657	521,826	27,703	57,901	97,723	144,969	193,530	1,093,730	1,277,108	886,063	317,583	48,607	1,638
First child	1,689,118	11,132	390,768	25,580	50,565	78,972	106,647	129,004	515,455	465,458	230,612	66,541	8,933	219
Second child	1,330,852	435	103,062	1,889	6,344	15,781	30,647	48,401	360,921	446,156	311,635	96,875	11,544	224
Third child	678,709	14	21,293	93	661	2,224	5,975	12,340	148,625	228,572	196,559	73,514	9,900	232
Fourth child	261,277	4	3,562	5	41	226	864	2,426	45,958	84,001	82,498	38,384	6,661	209
Fifth child	97,196	-	491	2	7	15	100	367	12,513	28,819	32,535	18,674	4,009	155
Sixth child	39,342	-	63	1	3	2	17	40	3,209	10,120	14,051	9,322	2,461	116
Seventh child	17,453	-	12	-	-	1	4	7	790	3,747	6,235	5,024	1,530	115
Eighth child and over	17,708	-	6	-	-	-	2	4	328	2,039	5,273	6,615	3,110	337
Not stated	26,557	72	2,569	133	280	502	713	941	5,931	8,196	6,665	2,634	459	31
Race of mother														
White	3,290,273	4,974	354,482	14,802	35,446	64,686	100,481	139,067	837,572	1,051,760	739,209	261,787	39,309	1,180
First child	1,361,078	4,760	278,206	13,962	32,224	55,097	78,319	98,604	418,381	397,591	197,469	56,960	7,538	173
Second child	1,075,049	174	62,936	746	2,833	8,356	18,648	32,353	279,181	375,821	265,354	81,814	9,594	175
Third child	529,727	7	10,336	25	224	877	2,769	6,441	102,171	183,243	164,802	60,910	8,082	176
Fourth child	191,827	4	1,310	3	12	54	298	943	26,401	61,819	65,857	30,927	5,341	168
Fifth child	66,430	-	171	-	2	5	34	130	5,833	18,895	24,028	14,280	3,112	111
Sixth child	25,498	-	19	-	3	1	4	11	1,252	5,718	9,680	6,872	1,873	84
Seventh child	10,873	-	3	-	-	-	1	2	258	1,854	3,938	3,614	1,127	79
Eighth child and over	10,963	-	3	-	-	-	1	2	142	869	3,032	4,423	2,303	191
Not stated	18,828	29	1,498	66	148	296	407	581	3,953	5,950	5,049	1,987	339	23
All other	867,939	6,683	167,344	12,901	22,455	33,037	44,488	54,463	256,158	225,348	146,854	55,796	9,298	458
First child	328,040	6,372	112,562	11,618	18,341	23,875	28,328	30,400	97,074	67,867	33,143	9,581	1,395	46
Second child	255,803	261	40,126	1,143	3,511	7,425	11,999	16,048	81,740	70,335	46,281	15,061	1,950	49
Third child	148,982	7	10,957	68	437	1,347	3,206	5,899	46,454	45,329	31,757	12,604	1,818	56
Fourth child	69,450	-	2,252	2	29	172	566	1,483	19,557	22,182	16,641	7,457	1,320	41
Fifth child	30,766	-	320	2	5	10	66	237	6,680	9,924	8,507	4,394	897	44
Sixth child	13,844	-	44	1	-	1	13	29	1,957	4,402	4,371	2,450	588	32
Seventh child	6,580	-	9	-	-	1	3	5	532	1,893	2,297	1,410	403	36
Eighth child and over	6,745	-	3	-	-	-	1	2	186	1,170	2,241	2,192	807	146
Not stated	7,729	43	1,071	67	132	206	306	360	1,978	2,246	1,616	647	120	8
Black ¹	684,336	6,338	151,613	12,023	20,734	30,124	40,171	48,561	217,274	168,217	99,514	35,592	5,581	207
First child	253,013	6,049	101,065	10,815	16,872	21,604	25,194	26,580	78,570	43,103	18,498	5,014	683	31
Second child	199,818	242	36,893	1,078	3,288	6,902	11,070	14,555	70,207	53,335	29,400	8,636	1,083	22
Third child	121,814	6	10,205	61	414	1,256	3,009	5,465	41,083	37,313	23,691	8,372	1,114	30
Fourth child	57,647	-	2,091	2	26	156	528	1,379	17,417	18,435	13,203	5,569	904	28
Fifth child	25,052	-	296	2	5	10	66	213	5,900	8,190	6,726	3,292	622	26
Sixth child	10,780	-	37	1	-	1	10	25	1,701	3,494	3,343	1,796	398	11
Seventh child	4,899	-	9	-	-	1	3	5	449	1,510	1,716	950	251	14
Eighth child and over	4,564	-	3	-	-	-	1	2	148	907	1,614	1,426	428	38
Not stated	6,749	41	1,014	64	129	194	290	337	1,799	1,930	1,323	537	98	7

Race of child														
White	3,225,343	4,855	343,920	14,345	34,426	62,846	97,503	134,800	817,789	1,034,573	727,416	257,113	38,525	1,152
First child	1,332,945	4,648	270,139	13,527	31,292	53,566	76,059	95,695	409,038	391,585	194,141	55,864	7,362	168
Second child	1,055,427	168	60,923	725	2,755	8,096	18,056	31,291	272,625	370,212	261,599	80,358	9,370	172
Third child	519,494	7	9,960	25	217	845	2,677	6,196	99,422	179,848	162,267	59,901	7,918	171
Fourth child	187,763	4	1,254	3	12	48	283	908	25,636	60,474	64,607	30,372	5,254	162
Fifth child	64,903	-	169	-	2	5	34	128	5,652	18,375	23,524	14,012	3,065	106
Sixth child	24,968	-	19	-	3	1	4	11	1,211	5,584	9,492	6,737	1,842	83
Seventh child	10,658	-	3	-	-	-	1	2	249	1,813	3,854	3,556	1,104	79
Eighth child and over	10,787	-	3	-	-	-	1	2	138	839	2,976	4,367	2,276	188
Not stated	18,398	28	1,450	65	145	285	388	567	3,818	5,843	4,956	1,946	334	23
All other	932,869	6,802	177,906	13,358	23,475	34,877	47,466	58,730	275,941	242,535	158,647	60,470	10,082	486
First child	356,173	6,484	120,629	12,053	19,273	25,406	30,588	33,309	106,417	73,873	36,471	10,677	1,571	51
Second child	275,425	267	42,139	1,164	3,589	7,685	12,591	17,110	88,296	75,944	50,036	16,517	2,174	52
Third child	159,215	7	11,333	68	444	1,379	3,298	6,144	49,203	48,724	34,292	13,613	1,982	61
Fourth child	73,514	-	2,308	2	29	178	581	1,518	20,322	23,527	17,891	8,012	1,407	47
Fifth child	32,293	-	322	2	5	10	66	239	6,861	10,444	9,011	4,662	944	49
Sixth child	14,374	-	44	1	-	1	13	29	1,998	4,536	4,559	2,585	619	33
Seventh child	6,795	-	9	-	-	1	3	5	541	1,934	2,381	1,468	426	36
Eighth child and over	6,921	-	3	-	-	-	1	2	190	1,200	2,297	2,248	834	149
Not stated	8,159	44	1,119	68	135	217	325	374	2,113	2,353	1,709	688	125	8
Black ¹	724,576	6,426	158,974	12,347	21,451	31,398	42,268	51,510	230,494	178,140	106,156	38,145	6,019	222
First child	270,523	6,130	106,678	11,127	17,528	22,663	26,778	28,582	84,743	46,332	20,262	5,567	780	31
Second child	211,552	248	38,289	1,089	3,341	7,077	11,495	15,287	74,488	56,550	31,387	9,377	1,187	26
Third child	128,178	6	10,482	61	418	1,281	3,075	5,647	42,982	39,328	25,189	8,944	1,215	32
Fourth child	60,266	-	2,126	2	26	161	537	1,400	17,993	19,288	13,957	5,914	957	31
Fifth child	26,085	-	296	2	5	10	66	213	6,032	8,561	7,070	3,442	656	28
Sixth child	11,148	-	37	1	-	1	10	25	1,735	3,583	3,476	1,891	414	12
Seventh child	5,043	-	9	-	-	1	3	5	456	1,540	1,773	986	265	14
Eighth child and over	4,682	-	3	-	-	-	1	2	149	933	1,657	1,457	442	41
Not stated	7,099	42	1,054	65	133	204	303	349	1,916	2,025	1,385	567	103	7

¹Included in All other.

Table 3. Birth rates by age of mother and live-birth order, by race of mother and of child: United States, 1990

[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	Age of mother										
	15-44 years ¹	10-14 years	15-19 years								45-49 years
			Total	15-17 years	18-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	
All races	70.9	1.4	59.9	37.5	88.6	116.5	120.2	80.8	31.7	5.5	0.2
First child	29.0	1.3	45.1	31.9	62.0	55.2	44.1	21.2	6.7	1.0	0.0
Second child	22.8	0.1	11.9	4.9	20.8	38.6	42.3	28.6	9.8	1.3	0.0
Third child	11.7	*	2.5	0.6	4.8	15.9	21.7	18.1	7.4	1.1	0.0
Fourth child	4.5	*	0.4	0.1	0.9	4.9	8.0	7.6	3.9	0.8	0.0
Fifth child	1.7	*	0.1	0.0	0.1	1.3	2.7	3.0	1.9	0.5	0.0
Sixth and seventh child	1.0	*	0.0	*	0.0	0.4	1.3	1.9	1.4	0.5	0.0
Eighth child and over	0.3	*	*	*	*	0.0	0.2	0.5	0.7	0.4	0.0
Race of mother											
White	68.3	0.7	50.8	29.5	78.0	109.8	120.7	81.7	31.5	5.2	0.2
First child	28.4	0.7	40.1	26.1	57.8	55.1	45.9	22.0	6.9	1.0	0.0
Second child	22.4	0.0	9.1	3.1	16.7	36.8	43.4	29.5	9.9	1.3	0.0
Third child	11.1	*	1.5	0.3	3.0	13.5	21.2	18.3	7.4	1.1	0.0
Fourth child	4.0	*	0.2	0.0	0.4	3.5	7.1	7.3	3.8	0.7	0.0
Fifth child	1.4	*	0.0	*	0.1	0.8	2.2	2.7	1.7	0.4	0.0
Sixth and seventh child	0.8	*	0.0	*	*	0.2	0.9	1.5	1.3	0.4	0.0
Eighth child and over	0.2	*	*	*	*	0.0	0.1	0.3	0.5	0.3	0.0
All other	83.2	4.0	96.3	69.1	132.4	145.4	117.7	76.3	32.8	6.7	0.4
First child	31.7	3.8	65.2	54.7	79.1	55.5	35.8	17.4	5.7	1.0	0.0
Second child	24.7	0.2	23.2	12.3	37.8	46.8	37.1	24.3	8.9	1.4	0.0
Third child	14.4	*	6.3	1.9	12.3	26.6	23.9	16.7	7.5	1.3	0.1
Fourth child	6.7	*	1.3	0.2	2.8	11.2	11.7	8.7	4.4	1.0	0.0
Fifth child	3.0	*	0.2	*	0.4	3.8	5.2	4.5	2.6	0.7	0.0
Sixth and seventh child	2.0	*	0.0	*	0.1	1.4	3.3	3.5	2.3	0.7	0.1
Eighth child and over	0.7	*	*	*	*	0.1	0.6	1.2	1.3	0.6	0.1
Black ²	86.8	4.9	112.8	82.3	152.9	160.2	115.5	68.7	28.1	5.5	0.3
First child	32.4	4.7	75.7	64.9	89.9	58.4	29.9	12.9	4.0	0.7	0.0
Second child	25.6	0.2	27.6	14.8	44.5	52.2	37.0	20.6	6.9	1.1	0.0
Third child	15.6	*	7.6	2.3	14.7	30.6	25.9	16.6	6.7	1.1	0.0
Fourth child	7.4	*	1.6	0.2	3.3	13.0	12.8	9.2	4.5	0.9	0.0
Fifth child	3.2	*	0.2	*	0.5	4.4	5.7	4.7	2.6	0.6	0.0
Sixth and seventh child	2.0	*	0.0	*	0.1	1.6	3.5	3.5	2.2	0.7	0.0
Eighth child and over	0.6	*	*	*	*	0.1	0.6	1.1	1.1	0.4	0.1
Race of child											
White	66.9	0.7	49.3	28.6	75.6	107.2	118.8	80.4	30.9	5.1	0.2
First child	27.8	0.7	38.9	25.3	56.1	53.9	45.2	21.6	6.8	1.0	0.0
Second child	22.0	0.0	8.8	3.0	16.1	35.9	42.7	29.1	9.7	1.3	0.0
Third child	10.8	*	1.4	0.3	2.9	13.1	20.8	18.1	7.3	1.1	0.0
Fourth child	3.9	*	0.2	0.0	0.4	3.4	7.0	7.2	3.7	0.7	0.0
Fifth child	1.4	*	0.0	*	0.1	0.7	2.1	2.6	1.7	0.4	0.0
Sixth and seventh child	0.7	*	0.0	*	*	0.2	0.9	1.5	1.2	0.4	0.0
Eighth child and over	0.2	*	*	*	*	0.0	0.1	0.3	0.5	0.3	0.0
All other	89.4	4.1	102.4	72.4	142.1	156.7	126.7	82.4	35.5	7.3	0.5
First child	34.4	3.9	69.9	57.6	86.1	60.9	39.0	19.1	6.3	1.1	0.1
Second child	26.6	0.2	24.4	12.6	40.0	50.5	40.1	26.3	9.8	1.6	0.1
Third child	15.4	*	6.6	1.9	12.7	28.2	25.7	18.0	8.1	1.4	0.1
Fourth child	7.1	*	1.3	0.2	2.8	11.6	12.4	9.4	4.8	1.0	0.0
Fifth child	3.1	*	0.2	*	0.4	3.9	5.5	4.7	2.8	0.7	0.0
Sixth and seventh child	2.1	*	0.0	*	0.1	1.5	3.4	3.6	2.4	0.8	0.1
Eighth child and over	0.7	*	*	*	*	0.1	0.6	1.2	1.3	0.6	0.1
Black ²	91.9	4.9	118.3	85.4	161.6	170.0	122.3	73.3	30.2	5.9	0.3
First child	34.6	4.7	79.9	67.6	96.1	63.0	32.2	14.2	4.5	0.8	0.0
Second child	27.1	0.2	28.7	15.2	46.5	55.4	39.3	22.0	7.5	1.2	0.0
Third child	16.4	*	7.9	2.3	15.1	32.0	27.3	17.6	7.2	1.2	0.0
Fourth child	7.7	*	1.6	0.2	3.4	13.4	13.4	9.8	4.7	1.0	0.0
Fifth child	3.3	*	0.2	*	0.5	4.5	5.9	4.9	2.8	0.7	0.0
Sixth and seventh child	2.1	*	0.0	*	0.1	1.6	3.6	3.7	2.3	0.7	0.0
Eighth child and over	0.6	*	*	*	*	0.1	0.6	1.2	1.2	0.4	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: United States, 1970-90

[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, 1980, and 1990, and estimated as of July 1 for all other years]

Year and race	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													
1990	2,081.0	1.4	59.9	37.5	88.6	116.5	120.2	80.8	31.7	5.5	0.2		
1989	2,014.0	1.4	57.3	36.4	84.2	113.8	117.6	77.4	29.9	5.2	0.2		
1988	1,934.0	1.3	53.0	33.6	79.9	110.2	114.4	74.8	28.1	4.8	0.2		
1987	1,872.0	1.3	50.6	31.7	78.5	107.9	111.6	72.1	26.3	4.4	0.2		
1986	1,837.5	1.3	50.2	30.5	79.6	107.4	109.8	70.1	24.4	4.1	0.2		
1985	1,844.0	1.2	51.0	31.0	79.6	108.3	111.0	69.1	24.0	4.0	0.2		
1984 ¹	1,806.5	1.2	50.6	31.0	77.4	106.8	108.7	67.0	22.9	3.9	0.2		
1983 ¹	1,799.0	1.1	51.4	31.8	77.4	107.8	108.5	64.9	22.0	3.9	0.2		
1982 ¹	1,827.5	1.1	52.4	32.3	79.4	111.6	111.0	64.1	21.2	3.9	0.2		
1981 ¹	1,812.0	1.1	52.2	32.0	80.0	112.2	111.5	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													
Race of mother:													
1990	2,003.0	0.7	50.8	29.5	78.0	109.8	120.7	81.7	31.5	5.2	0.2		
1989	1,931.0	0.7	47.9	28.1	72.9	106.9	117.8	78.1	29.7	4.9	0.2		
Race of child:													
1990	1,963.0	0.7	49.3	28.6	75.6	107.2	118.8	80.4	30.9	5.1	0.2		
1989	1,894.5	0.7	46.6	27.4	70.9	104.6	115.9	76.9	29.2	4.8	0.2		
1988	1,822.5	0.6	43.2	25.3	67.8	101.6	113.0	74.3	27.2	4.4	0.2		
1987	1,774.5	0.6	41.5	24.0	67.3	100.4	110.7	71.9	25.5	4.1	0.2		
1986	1,747.5	0.6	41.5	23.3	68.7	101.0	109.2	69.8	23.5	3.7	0.2		
1985	1,759.0	0.6	42.5	24.0	69.2	102.4	110.7	68.9	22.9	3.6	0.2		
1984 ¹	1,722.5	0.6	42.2	23.9	67.3	101.1	108.3	66.8	21.8	3.5	0.2		
1983 ¹	1,716.0	0.6	43.3	24.7	67.7	102.2	108.0	64.4	21.0	3.5	0.2		
1982 ¹	1,741.5	0.6	44.3	25.1	69.7	106.0	110.4	63.2	20.1	3.5	0.2		
1981 ¹	1,726.0	0.5	44.3	25.1	70.4	106.7	111.0	60.3	18.8	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: United States, 1970–90—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, 1980, and 1990, and estimated as of July 1 for all other years]

Year and race	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											
Race of mother:											
1990	2,398.0	4.0	96.3	69.1	132.4	145.4	117.7	76.3	32.8	6.7	0.4
1989	2,360.5	4.2	95.9	69.2	132.5	143.6	116.6	73.7	31.1	6.6	0.4
Race of child:											
1990	2,578.0	4.1	102.4	72.4	142.1	156.7	126.7	82.4	35.5	7.3	0.5
1989	2,527.5	4.3	101.2	72.1	141.2	153.8	125.4	79.6	33.7	7.1	0.4
1988	2,421.0	4.1	94.0	67.5	133.1	148.3	120.8	77.2	32.6	6.8	0.4
1987	2,314.0	4.0	89.8	64.7	127.5	142.1	116.1	73.3	30.8	6.3	0.4
1986	2,253.5	3.9	88.7	62.6	128.0	137.9	112.9	71.1	29.7	6.1	0.4
1985	2,241.5	3.8	88.9	62.8	126.3	136.8	112.6	70.0	30.0	5.8	0.4
1984 ¹	2,208.5	3.8	88.3	63.2	123.1	135.2	111.0	68.3	28.8	5.9	0.4
1983 ¹	2,211.0	3.6	88.9	64.1	122.7	136.3	111.2	67.6	28.2	6.0	0.4
1982 ¹	2,262.5	3.5	90.5	64.9	126.4	140.8	114.4	68.6	28.1	6.1	0.5
1981 ¹	2,256.5	3.6	90.6	64.7	128.0	140.8	114.2	68.0	27.5	6.2	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											
Race of mother:											
1990	2,480.0	4.9	112.8	82.3	152.9	160.2	115.5	68.7	28.1	5.5	0.3
1989	2,432.5	5.1	111.5	81.9	151.9	156.8	114.4	66.3	26.7	5.4	0.3
Race of child:											
1990	2,626.0	4.9	118.3	85.4	161.6	170.0	122.3	73.3	30.2	5.9	0.3
1989	2,564.0	5.2	116.2	84.4	159.4	165.2	120.9	70.6	28.6	5.8	0.3
1988	2,417.5	4.9	106.9	78.1	149.4	157.1	114.4	67.1	27.3	5.5	0.3
1987	2,306.5	4.8	101.1	74.2	141.4	149.2	110.2	64.4	26.2	5.2	0.2
1986	2,237.5	4.7	98.8	71.1	140.0	143.5	106.8	63.0	25.4	5.0	0.3
1985	2,206.0	4.6	97.9	70.7	136.4	140.7	105.9	61.4	25.5	4.9	0.3
1984 ¹	2,161.0	4.4	96.1	70.4	131.3	137.8	103.8	60.0	24.8	5.0	0.3
1983 ¹	2,153.0	4.1	95.8	70.6	130.2	137.5	103.7	59.3	24.6	5.3	0.3
1982 ¹	2,198.0	4.1	96.4	70.8	132.4	141.3	106.9	60.5	24.6	5.4	0.4
1981 ¹	2,205.5	4.1	96.5	70.4	134.4	142.5	107.6	60.3	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.

NOTE: Rates for 1981–89 have been revised; see Technical notes.

Table 5. Birth rates by live-birth order and race: United States, 1970 and 1980–90

[Rates are live births per 1,000 women aged 15–44 years, enumerated as of April 1 for 1970, 1980, and 1990, and estimated as of July 1 for all other years. Figures for live-birth order not stated are distributed]

Year and race	Total	Live-birth order						
		1	2	3	4	5	6 and 7	8 and over
All races								
1990	70.9	29.0	22.8	11.7	4.5	1.7	1.0	0.3
1989	69.2	28.4	22.4	11.3	4.3	1.6	0.9	0.3
1988	67.3	27.6	22.0	10.9	4.1	1.5	0.9	0.3
1987	65.8	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	66.3	27.6	22.0	10.4	3.8	1.4	0.8	0.3
1984 ¹	65.5	27.4	21.7	10.1	3.7	1.4	0.9	0.3
1983 ¹	65.7	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	67.3	29.0	21.6	10.1	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
1970 ²	87.9	34.2	24.2	13.6	7.2	3.8	3.2	1.8
White								
Race of mother:								
1990	68.3	28.4	22.4	11.1	4.0	1.4	0.8	0.2
1989	66.4	27.6	21.9	10.7	3.8	1.3	0.7	0.2
Race of child:								
1990	66.9	27.8	22.0	10.8	3.9	1.4	0.7	0.2
1989	65.1	27.1	21.5	10.5	3.8	1.3	0.7	0.2
1988	63.4	26.3	21.2	10.2	3.6	1.2	0.7	0.2
1987	62.3	26.0	21.0	9.8	3.4	1.1	0.6	0.2
1986	62.1	26.1	21.0	9.7	3.3	1.1	0.6	0.2
1985	63.2	26.6	21.5	9.7	3.3	1.1	0.7	0.2
1984 ¹	62.3	26.5	21.1	9.4	3.3	1.1	0.7	0.2
1983 ¹	62.5	26.8	20.9	9.4	3.3	1.2	0.7	0.2
1982 ¹	63.9	27.6	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
1970 ²	84.1	32.9	23.7	13.3	6.8	3.4	2.7	1.2
All other								
Race of mother:								
1990	83.2	31.7	24.7	14.4	6.7	3.0	2.0	0.7
1989	82.7	32.0	24.6	14.2	6.5	2.9	1.9	0.6
Race of child:								
1990	89.4	34.4	26.6	15.4	7.1	3.1	2.1	0.7
1989	88.6	34.5	26.4	15.1	6.9	3.0	2.0	0.6
1988	85.9	33.7	25.8	14.5	6.6	2.8	1.9	0.6
1987	83.1	32.8	25.0	14.0	6.2	2.7	1.8	0.6
1986	81.9	32.5	24.6	13.6	6.1	2.6	1.8	0.6
1985	82.3	32.5	24.8	13.7	6.2	2.7	1.8	0.6
1984 ¹	81.8	32.5	24.5	13.6	6.1	2.7	1.8	0.6
1983 ¹	82.7	32.8	24.7	13.7	6.2	2.7	1.9	0.7
1982 ¹	85.3	33.7	25.6	14.2	6.4	2.8	1.9	0.7
1981 ¹	85.7	34.0	25.7	14.1	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
1970 ²	113.0	42.4	26.9	15.9	9.7	6.1	6.7	5.3
Black³								
Race of mother:								
1990	86.8	32.4	25.6	15.6	7.4	3.2	2.0	0.6
1989	86.2	32.9	25.4	15.3	7.1	3.0	1.9	0.6
Race of child:								
1990	91.9	34.6	27.1	16.4	7.7	3.3	2.1	0.6
1989	90.8	34.9	26.8	16.0	7.4	3.1	2.0	0.6
1988	87.0	33.7	25.9	15.1	6.9	2.9	1.8	0.5
1987	84.1	33.0	25.0	14.5	6.5	2.8	1.7	0.5
1986	82.6	32.6	24.6	14.1	6.4	2.7	1.7	0.5
1985	82.4	32.5	24.5	14.0	6.3	2.7	1.8	0.6
1984 ¹	81.5	32.3	24.1	13.8	6.3	2.7	1.8	0.6
1983 ¹	82.0	32.4	24.2	13.8	6.4	2.8	1.8	0.7
1982 ¹	84.4	33.1	25.0	14.3	6.6	2.8	1.9	0.7
1981 ¹	85.3	33.7	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
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.

NOTE: Rates for 1981–89 have been revised; see Technical notes.

Table 6. Live births by race of mother and of child, birth rates, and fertility rates by race and Hispanic origin of mother: United States, each division and State, 1990

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

Division and State	Number					Birth rate	Fertility rate			
	All races ¹	Race of mother		Race of child			All races ¹	Race of mother		Hispanic origin ²
		White	Black	White	Black			White	Black	
United States	4,158,212	3,290,273	684,336	3,225,343	724,576	16.7	70.9	68.3	86.8	107.7
New England	201,173	178,444	16,765	175,316	18,985	15.2	62.8	60.6	93.7	103.5
Maine	17,359	17,019	96	16,863	163	14.1	60.5	60.3	88.6	72.6
New Hampshire	17,569	17,278	113	17,120	184	15.8	64.1	64.3	62.1	---
Vermont	8,273	8,203	21	8,166	38	14.7	60.5	60.8	45.1	29.4
Massachusetts	92,654	79,947	9,013	78,275	10,248	15.4	62.4	59.2	101.8	108.4
Rhode Island	15,195	13,374	1,158	13,105	1,341	15.1	63.6	60.3	105.5	127.0
Connecticut	50,123	42,623	6,364	41,787	7,011	15.2	64.2	62.0	83.7	93.8
Middle Atlantic	591,826	458,589	111,956	450,136	118,737	15.7	67.1	64.5	81.7	90.7
New York	297,576	220,726	63,315	216,808	66,340	16.5	69.1	67.4	77.9	91.1
New Jersey	122,289	94,352	23,097	92,610	24,504	15.8	67.0	64.6	81.8	87.4
Pennsylvania	171,961	143,511	25,544	140,718	27,893	14.5	63.9	60.5	92.8	97.2
East North Central	675,512	544,621	117,879	536,696	123,546	16.1	68.6	64.8	94.3	99.5
Ohio	166,913	139,183	25,955	137,060	27,678	15.4	65.9	63.0	89.0	70.0
Indiana	86,214	75,777	9,473	74,640	10,294	15.6	66.5	64.6	86.2	77.3
Illinois	195,790	147,241	43,320	144,789	45,164	17.1	73.0	68.3	98.2	110.5
Michigan	153,700	119,108	31,957	117,515	32,900	16.5	69.4	65.1	93.5	88.0
Wisconsin	72,895	63,312	7,174	62,692	7,510	14.9	64.7	61.0	110.3	86.2
West North Central	270,331	238,954	22,066	235,439	24,138	15.3	67.6	65.1	97.8	83.1
Minnesota	68,013	61,968	2,579	61,015	3,103	15.5	66.3	63.8	109.9	83.0
Iowa	39,409	37,692	1,048	37,356	1,277	14.2	64.8	64.1	91.3	82.0
Missouri	79,260	64,635	13,569	63,750	14,115	15.5	68.0	64.1	96.8	64.3
North Dakota	9,250	8,347	80	8,216	119	14.5	66.1	63.4	99.0	107.2
South Dakota	10,999	9,172	69	8,964	135	15.8	73.8	67.4	111.5	92.5
Nebraska	24,380	22,391	1,379	22,094	1,552	15.4	69.1	67.6	95.9	93.7
Kansas	39,020	34,749	3,342	34,044	3,837	15.7	70.3	68.8	96.6	90.8
South Atlantic	700,285	483,865	201,386	476,146	207,214	16.1	68.0	62.8	85.4	76.6
Delaware	11,113	8,360	2,583	8,248	2,674	16.7	68.9	65.3	86.1	83.9
Maryland	80,245	52,434	24,873	50,963	26,018	16.8	67.2	64.2	74.3	74.3
District of Columbia	11,850	1,827	9,083	1,736	9,150	19.5	71.7	31.8	87.7	94.4
Virginia	99,352	72,304	23,877	71,148	24,744	16.1	64.7	61.3	78.9	79.5
West Virginia	22,585	21,594	863	21,473	964	12.6	56.1	55.8	67.2	36.7
North Carolina	104,525	71,154	30,766	69,834	31,651	15.8	65.5	60.5	80.4	99.3
South Carolina	58,610	35,614	22,420	35,226	22,699	16.8	69.7	63.3	83.4	74.2
Georgia	112,666	70,571	40,505	69,655	41,260	17.4	69.7	63.2	85.6	86.8
Florida	199,339	150,007	46,416	147,863	48,054	15.4	71.5	65.7	103.2	74.4
East South Central	236,374	168,864	65,312	167,494	66,330	15.6	66.3	60.9	86.2	50.6
Kentucky	54,362	48,857	5,098	48,511	5,371	14.8	62.8	61.6	77.4	52.3
Tennessee	74,962	56,610	17,595	55,999	18,045	15.4	64.8	60.2	86.1	54.2
Alabama	63,487	41,100	21,867	40,834	22,046	15.7	67.3	60.9	84.7	57.2
Mississippi	43,563	22,297	20,752	22,150	20,868	16.9	72.9	61.5	90.5	30.4
West South Central	472,721	372,705	86,684	366,069	90,159	17.7	74.7	72.9	86.0	107.0
Arkansas	36,457	27,502	8,505	27,151	8,684	15.5	70.1	65.2	93.7	89.5
Louisiana	72,192	41,251	29,720	40,730	30,015	17.1	72.1	62.7	90.8	41.8
Oklahoma	47,649	37,800	5,100	35,628	5,540	15.1	67.5	65.2	88.2	---
Texas	316,423	266,152	43,359	262,560	45,920	18.6	77.2	77.1	81.5	108.5
Mountain	242,829	216,405	8,265	212,366	10,169	17.8	76.4	74.7	89.2	101.7
Montana	11,613	10,030	37	9,675	75	14.5	65.9	61.5	81.5	103.1
Idaho	16,433	15,952	43	15,759	92	16.3	74.2	74.4	62.2	124.9
Wyoming	6,985	6,578	67	6,474	107	15.4	67.4	66.0	81.0	84.8
Colorado	53,525	49,012	2,887	48,131	3,398	16.2	65.9	65.1	85.5	89.2
New Mexico	27,402	22,603	537	22,150	779	18.1	77.7	73.7	75.4	87.6
Arizona	68,995	59,206	2,567	58,134	3,174	18.8	82.3	79.7	94.3	118.7
Utah	36,277	34,445	220	33,941	386	21.1	92.0	91.6	93.5	102.4
Nevada	21,599	18,579	1,907	18,102	2,158	18.0	77.6	77.0	94.5	111.1
Pacific	767,161	627,826	54,023	605,681	65,298	19.6	81.8	82.9	84.2	127.8
Washington	79,251	70,666	2,908	68,237	4,146	16.3	68.7	68.3	80.3	113.3
Oregon	42,891	39,903	919	38,887	1,261	15.1	66.1	65.6	85.4	119.5
California	612,628	502,976	48,987	486,252	58,215	20.6	85.3	87.7	84.1	128.4
Alaska	11,902	8,085	535	7,619	716	21.6	86.3	76.0	94.3	74.7
Hawaii	20,489	6,196	674	4,686	960	18.5	79.2	68.0	104.4	124.3

¹Includes races other than white and black.

²Persons of Hispanic origin may be of any race.

NOTE: Data by Hispanic origin not available for New Hampshire and Oklahoma, which did not report Hispanic origin of mother on the birth certificate.

Table 7. Live births by sex and sex ratio, by race: United States, 1980-90

Year	All races			White			All other			Black		
	Male	Female	Males per 1,000 females	Male	Female	Males per 1,000 females	Total		Males per 1,000 females	Male	Female	Males per 1,000 females
							Male	Female				
Race of mother												
1990.....	2,129,495	2,028,717	1,050	1,688,088	1,602,185	1,054	441,407	426,532	1,035	347,082	337,254	1,029
1989.....	2,069,490	1,971,468	1,050	1,637,594	1,554,761	1,053	431,896	416,707	1,036	341,716	331,408	1,031
Race of child												
1990.....	2,129,495	2,028,717	1,050	1,654,928	1,570,415	1,054	474,567	458,302	1,035	367,455	357,121	1,029
1989.....	2,069,490	1,971,468	1,050	1,606,757	1,525,234	1,053	462,733	446,234	1,037	360,131	349,264	1,031
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	301,121	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

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

Table 8. Live births by race of mother and observed and seasonally adjusted birth and fertility rates, by month: United States, 1990

[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.....	4,158,212	3,290,273	867,939	684,336	16.7	70.9	...	...
January.....	335,274	262,570	72,704	57,941	15.9	67.4	16.7	70.9
February.....	312,611	246,448	66,163	52,467	16.4	69.6	16.8	71.1
March.....	350,614	279,037	71,577	56,293	16.6	70.4	16.9	71.5
April.....	336,382	269,387	66,995	52,445	16.5	69.8	16.9	71.6
May.....	354,114	283,725	70,389	54,861	16.8	71.1	16.9	71.7
June.....	347,355	276,746	70,609	55,551	17.0	72.0	16.6	70.6
July.....	367,670	290,394	77,276	61,264	17.4	73.7	16.7	70.8
August.....	372,516	294,115	78,401	62,139	17.6	74.7	16.6	70.4
September.....	358,682	283,142	75,540	59,709	17.5	74.2	16.3	69.4
October.....	353,166	279,148	74,018	58,151	16.6	70.7	16.7	71.0
November.....	333,146	262,000	71,146	55,854	16.2	68.9	16.7	71.0
December.....	336,682	263,561	73,121	57,661	15.8	67.3	16.5	70.3

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, 1990

<i>Day of week</i>	<i>Average number of births</i>	<i>Index of occurrence¹</i>
Total	11,392	100.0
Sunday	9,153	80.3
Monday	11,582	101.7
Tuesday	12,382	108.7
Wednesday	12,221	107.3
Thursday	12,230	107.4
Friday	12,375	108.6
Saturday	9,799	86.0

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 mother and of child: United States, 1990

Place of delivery and race	All births	Attendant							
		Physician				Midwife			
		Total	Doctor of medicine	Doctor of osteopathy	Total	Certified nurse midwife	Other midwife	Other	Unspecified
All races ¹	4,158,212	3,948,270	3,821,638	126,632	163,049	148,728	14,321	30,709	16,184
In hospital ²	4,109,634	3,933,539	3,808,368	125,171	141,953	139,229	2,724	19,400	14,742
Not in hospital	46,946	13,722	12,299	1,423	20,996	9,421	11,575	11,274	954
Freestanding birthing center	14,759	5,962	5,244	718	8,554	5,711	2,843	182	61
Clinic or doctor's office	1,128	688	548	140	276	99	177	127	37
Residence	27,678	5,825	5,299	526	11,441	3,429	8,012	9,661	751
Other	3,381	1,247	1,208	39	725	182	543	1,304	105
Not specified	1,632	1,009	971	38	100	78	22	35	488
Race of mother									
White	3,290,273	3,134,547	3,028,656	105,891	122,638	109,346	13,292	22,184	10,904
In hospital ²	3,249,275	3,123,362	3,018,782	104,580	102,416	100,390	2,026	13,597	9,900
Not in hospital	39,608	10,302	9,027	1,275	20,129	8,884	11,245	8,567	610
Freestanding birthing center	13,914	5,484	4,825	659	8,204	5,411	2,793	168	58
Clinic or doctor's office	948	566	436	130	254	87	167	102	26
Residence	22,418	3,513	3,052	461	10,970	3,221	7,749	7,476	459
Other	2,328	739	714	25	701	165	536	821	67
Not specified	1,390	883	847	36	93	72	21	20	394
Black	684,336	642,137	625,209	16,928	30,439	29,745	694	7,155	4,605
In hospital ²	678,510	639,094	622,290	16,804	29,972	29,398	574	5,124	4,320
Not in hospital	5,605	2,932	2,810	122	460	341	119	2,017	196
Freestanding birthing center	576	355	300	55	207	185	22	12	2
Clinic or doctor's office	89	61	59	2	9	9	-	8	11
Residence	4,113	2,087	2,031	56	227	132	95	1,639	160
Other	827	429	420	9	17	15	2	358	23
Not specified	221	111	109	2	7	6	1	14	89
Race of child									
White	3,225,343	3,073,702	2,970,114	103,588	119,261	106,181	13,080	21,753	10,627
In hospital ²	3,185,106	3,062,728	2,960,438	102,290	99,389	97,419	1,970	13,346	9,643
Not in hospital	38,857	10,095	8,832	1,263	19,781	8,691	11,090	8,387	594
Freestanding birthing center	13,680	5,383	4,731	652	8,075	5,303	2,772	166	56
Clinic or doctor's office	926	550	420	130	250	86	164	102	24
Residence	21,966	3,438	2,981	457	10,764	3,144	7,620	7,317	447
Other	2,285	724	700	24	692	158	534	802	67
Not specified	1,380	879	844	35	91	71	20	20	390
Black	724,576	679,791	661,380	18,411	32,543	31,751	792	7,423	4,819
In hospital ²	718,395	676,647	658,366	18,281	31,926	31,314	612	5,303	4,519
Not in hospital	5,954	3,032	2,904	128	609	431	178	2,106	207
Freestanding birthing center	680	396	339	57	268	237	31	14	2
Clinic or doctor's office	94	65	63	2	9	9	0	8	12
Residence	4,334	2,137	2,077	60	311	167	144	1,716	170
Other	846	434	425	9	21	18	3	368	23
Not specified	227	112	110	2	8	6	2	14	93

¹Includes races other than white and black.

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

Table 11. Live births by age of father and mother and race of father and of child: United States, 1990

Age of mother and race	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	4,158,212	445	128,090	628,335	1,060,148	955,226	474,297	164,756	45,046	13,363	7,379	681,127
Under 15 years	11,657	126	2,308	852	154	32	15	2	-	-	2	8,166
15-19 years	521,826	239	97,833	161,807	37,519	7,853	2,012	613	229	81	85	213,555
20-24 years	1,093,730	52	25,171	376,007	339,588	86,210	21,661	6,465	2,164	707	513	235,192
25-29 years	1,277,108	17	2,265	74,147	561,709	381,236	92,540	24,908	6,757	2,274	1,326	129,929
30-34 years	886,063	8	400	12,605	103,901	417,468	211,836	54,439	13,649	4,033	2,141	65,583
35-39 years	317,583	3	101	2,600	15,648	57,768	136,220	60,016	14,891	4,087	2,231	24,018
40-44 years	48,607	-	10	308	1,587	4,565	9,878	18,048	6,829	1,958	961	4,463
45-49 years	1,638	-	2	9	42	94	135	265	527	223	120	221
Race of father												
White	2,962,698	278	94,097	507,168	905,660	818,185	398,292	134,685	35,205	9,767	5,000	54,361
Under 15 years	2,396	61	1,222	609	112	24	11	2	-	-	1	354
15-19 years	250,316	157	71,547	126,891	30,008	6,223	1,584	483	182	53	56	13,132
20-24 years	722,055	42	19,211	306,584	284,069	69,698	16,767	4,949	1,645	487	326	18,277
25-29 years	990,697	12	1,710	60,391	488,057	325,129	75,505	19,865	5,147	1,617	814	12,450
30-34 years	708,593	5	318	10,239	88,808	363,833	179,284	44,163	10,682	2,941	1,426	6,894
35-39 years	250,490	1	80	2,193	13,211	49,378	116,781	49,837	11,718	3,044	1,603	2,644
40-44 years	37,092	-	7	254	1,360	3,830	8,260	15,193	5,432	1,477	702	577
45-49 years	1,059	-	2	7	35	70	100	193	399	148	72	33
Black	424,108	142	28,138	97,612	111,429	84,751	44,562	18,466	6,598	2,525	1,726	28,159
Under 15 years	1,687	59	981	190	28	3	2	-	-	-	-	424
15-19 years	65,309	69	21,805	28,240	5,494	1,126	311	91	35	21	20	8,097
20-24 years	127,808	10	4,828	56,214	41,577	11,016	3,303	1,079	411	172	152	9,046
25-29 years	119,992	1	450	10,875	51,929	34,624	10,523	3,475	1,224	513	410	5,968
30-34 years	76,714	1	59	1,776	10,580	32,314	18,734	6,474	2,101	824	527	3,324
35-39 years	27,972	2	12	281	1,674	5,190	10,771	5,782	2,015	698	443	1,104
40-44 years	4,473	-	3	35	144	463	902	1,533	768	274	161	190
45-49 years	153	-	-	1	3	15	16	32	44	23	13	6
Race of child												
White	3,225,343	276	93,622	502,737	897,576	811,362	394,673	132,910	34,569	9,488	4,806	343,324
Under 15 years	4,855	59	1,212	606	115	24	10	2	-	-	-	2,827
15-19 years	343,920	157	71,262	126,475	29,854	6,193	1,572	485	182	49	59	107,632
20-24 years	817,789	42	19,080	303,933	281,998	69,100	16,587	4,860	1,592	467	313	119,817
25-29 years	1,034,573	12	1,670	59,330	484,042	322,787	74,729	19,457	4,997	1,557	772	65,220
30-34 years	727,416	5	309	9,996	87,360	361,035	177,818	43,533	10,500	2,848	1,364	32,648
35-39 years	257,113	1	80	2,141	12,861	48,454	115,730	49,342	11,512	2,962	1,540	12,490
40-44 years	38,525	-	7	249	1,312	3,698	8,125	15,030	5,384	1,456	683	2,581
45-49 years	1,152	-	2	7	34	71	102	201	402	149	75	109
Black	724,576	146	29,513	101,702	115,692	88,005	46,219	19,220	6,883	2,648	1,816	312,732
Under 15 years	6,426	61	1,024	198	28	4	2	-	-	-	1	5,108
15-19 years	158,974	70	22,821	29,336	5,752	1,180	325	98	37	24	23	99,308
20-24 years	230,494	10	5,090	58,465	43,033	11,532	3,454	1,134	439	187	164	106,986
25-29 years	178,140	2	493	11,449	53,817	35,929	10,939	3,662	1,294	541	444	59,570
30-34 years	106,156	1	66	1,903	11,111	33,369	19,345	6,691	2,188	863	551	30,068
35-39 years	38,145	2	16	311	1,792	5,479	11,171	5,999	2,080	722	452	10,121
40-44 years	6,019	-	3	39	156	496	964	1,603	797	285	167	1,509
45-49 years	222	-	-	1	3	16	19	33	48	26	14	62

¹Includes races other than white and black, and births with race of father not stated.

Table 12. Birth rates by age of father and race: United States, 1980-90

[Rates are live births per 1,000 men in specified group, enumerated as of April 1 for 1980 and 1990 and estimated as of July 1 for all other years. Figures for age of father not stated are distributed]

Year and race	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										
1990	58.4	23.5	88.0	116.4	97.8	53.0	21.0	7.5	2.8	0.4
1989	57.2	21.9	85.4	114.3	94.8	51.3	20.4	7.4	2.7	0.6
1988	55.8	19.6	82.4	111.6	93.1	49.9	19.9	7.1	2.7	0.4
1987	55.0	18.3	80.5	109.9	91.2	48.6	19.0	6.9	2.6	0.4
1986	54.8	17.9	80.3	109.6	90.3	46.8	18.3	6.7	2.6	0.4
1985	55.6	18.0	81.2	112.3	91.1	47.3	18.1	6.6	2.5	0.4
1984	55.0	17.8	80.7	111.4	89.9	46.0	17.8	6.3	2.4	0.4
1983	55.1	18.2	82.7	113.0	89.0	45.2	17.4	6.4	2.3	0.4
1982	56.4	18.6	86.5	117.3	90.2	44.5	17.5	6.4	2.3	0.4
1981	56.3	18.4	88.4	119.1	88.7	43.3	17.0	6.2	2.3	0.4
1980	57.0	18.8	92.0	123.0	91.0	42.8	17.1	6.1	2.2	0.4
White										
Race of father:										
1990	54.6	18.1	78.3	113.2	96.1	50.9	19.2	6.5	2.2	0.3
1989	53.3	16.7	75.9	110.8	93.0	49.1	18.7	6.3	2.1	0.4
Race of child:										
1990	53.8	17.8	77.2	111.7	94.9	50.1	18.9	6.3	2.1	0.3
1989	52.6	16.4	74.7	109.3	91.8	48.3	18.3	6.2	2.0	0.4
1988	51.5	14.6	72.6	107.0	90.0	46.9	17.7	5.9	2.0	0.2
1987	50.9	13.7	71.8	105.7	88.4	45.6	17.0	5.7	2.0	0.2
1986	51.0	13.5	72.3	105.8	87.7	43.8	16.3	5.6	1.9	0.3
1985	51.9	13.8	73.7	108.7	88.5	44.2	16.0	5.4	1.9	0.3
1984	51.2	13.8	73.4	107.7	87.0	43.0	15.7	5.2	1.8	0.3
1983	51.4	14.3	75.4	109.1	85.9	42.0	15.3	5.2	1.8	0.2
1982	52.5	14.7	79.2	113.1	86.6	41.2	15.4	5.2	1.8	0.3
1981	52.3	14.8	80.8	114.7	84.9	39.9	14.8	5.1	1.8	0.3
1980	52.9	15.2	84.0	118.4	86.9	39.2	14.7	5.0	1.8	0.3
All other										
Race of father:										
1990	78.2	45.6	132.5	132.3	106.6	65.2	31.9	14.4	6.6	1.4
1989	77.7	43.9	130.1	132.1	104.5	64.2	31.6	14.2	6.4	2.4
Race of child:										
1990	82.4	46.9	138.0	139.9	113.2	69.3	34.3	15.5	7.2	1.5
1989	81.8	45.2	135.4	139.7	110.8	68.4	33.9	15.4	7.0	2.5
1988	79.7	41.3	129.1	135.9	110.2	67.5	33.7	15.2	7.1	1.5
1987	77.3	38.6	123.1	132.6	106.5	66.6	32.7	14.6	6.7	1.4
1986	76.4	37.5	120.5	130.8	105.4	65.8	31.6	14.4	6.9	1.4
1985	77.1	37.1	120.1	132.9	106.1	67.5	31.9	14.2	6.8	1.3
1984	76.8	36.7	120.0	132.8	107.1	66.0	31.7	13.9	6.5	1.4
1983	77.8	36.8	122.3	136.0	108.1	67.1	31.6	14.3	6.3	1.3
1982	80.4	37.0	127.5	142.5	113.0	68.2	32.1	14.7	6.4	1.3
1981	80.7	35.8	131.4	145.4	113.3	67.7	31.9	14.2	6.1	1.3
1980	83.6	37.5	139.0	152.3	118.9	68.6	33.7	14.3	6.2	1.3
Black³										
Race of father:										
1990	84.9	55.2	158.2	144.9	103.2	60.4	31.1	15.0	7.1	1.4
1989	84.1	52.9	153.4	143.5	101.4	59.9	31.1	14.9	6.9	2.7
Race of child:										
1990	86.3	55.9	160.6	147.3	105.0	61.5	31.8	15.3	7.2	1.5
1989	85.4	53.6	155.6	145.8	103.1	60.9	31.7	15.2	7.1	2.8
1988	82.0	48.7	146.1	140.2	101.6	59.0	31.1	14.6	7.1	1.4
1987	79.5	45.1	138.0	136.0	99.0	59.1	30.7	14.1	6.7	1.3
1986	78.3	43.1	133.1	133.5	98.9	59.0	29.6	13.8	6.9	1.3
1985	78.3	42.3	131.1	134.4	98.6	60.4	30.0	13.6	6.7	1.3
1984	77.6	41.2	129.5	133.9	99.6	59.3	29.7	13.5	6.2	1.3
1983	78.1	41.0	130.5	136.1	100.2	60.5	30.0	13.7	6.1	1.2
1982	80.4	40.7	134.8	142.8	105.0	62.1	30.1	14.1	6.1	1.2
1981	81.2	39.2	139.7	147.2	105.6	62.1	30.0	13.6	5.9	1.2
1980	83.8	40.4	146.6	154.2	110.8	62.8	31.5	13.8	6.0	1.2

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.

³Included in All other.

NOTE: Rates for 1981-89 have been revised; see Technical notes.

Table 13. Number and percent low birth weight and live births by birth weight, age of mother, and race of mother and of child: United States, 1990

Age of mother and race	Birth weight ²														Not stated
	Low birth weight ¹		Total	Less than 500 grams	500-999 grams	1,000-1,499 grams	1,500-1,999 grams	2,000-2,499 grams	2,500-2,999 grams	3,000-3,499 grams	3,500-3,999 grams	4,000-4,499 grams	4,500-4,999 grams	5,000 grams or more	
	Number	Percent													
All races	289,418	7.0	4,158,212	5,555	20,533	26,827	55,087	181,416	665,737	1,524,675	1,220,843	378,003	66,178	8,054	5,304
Under 15 years	1,545	13.3	11,657	37	150	184	305	869	2,835	4,585	2,218	409	31	5	29
15-19 years	48,324	9.3	521,826	915	3,641	4,730	9,232	29,806	107,229	205,708	125,958	29,506	3,914	418	769
15 years	3,246	11.7	27,703	67	306	354	661	1,858	6,329	11,036	5,818	1,073	133	16	52
16 years	5,981	10.3	57,901	125	490	614	1,115	3,637	12,844	23,091	12,778	2,728	343	37	99
17 years	9,441	9.7	97,723	185	701	952	1,812	5,791	20,535	38,942	22,895	5,115	615	56	124
18 years	13,318	9.2	144,969	229	985	1,260	2,575	8,269	29,663	57,073	35,129	8,356	1,100	120	210
19 years	16,338	8.5	193,530	309	1,159	1,550	3,069	10,251	37,858	75,566	49,338	12,234	1,723	189	284
20-24 years	77,300	7.1	1,093,730	1,455	5,435	7,025	14,332	49,053	189,227	417,226	306,555	86,654	13,843	1,512	1,413
25-29 years	78,486	6.2	1,277,108	1,493	5,372	6,973	14,707	49,941	189,656	464,433	393,476	125,117	21,791	2,668	1,481
30-34 years	56,444	6.4	886,063	1,131	3,938	5,240	10,909	35,226	124,475	308,964	279,543	95,341	18,084	2,167	1,045
35-39 years	23,283	7.3	317,583	463	1,699	2,269	4,743	14,109	44,975	106,963	98,094	35,468	7,250	1,077	473
40-44 years	3,869	8.0	48,607	61	290	386	821	2,311	7,095	16,238	14,559	5,332	1,222	200	92
45-49 years	167	10.2	1,638	-	8	20	38	101	245	558	440	176	43	7	2
Race of mother															
White	187,179	5.7	3,290,273	3,010	11,791	16,513	35,540	120,325	468,339	1,191,605	1,036,984	335,641	59,654	7,039	3,832
Under 15 years	512	10.3	4,974	13	43	68	112	276	1,023	1,939	1,210	249	22	4	15
15-19 years	26,714	7.5	354,482	420	1,843	2,533	5,122	16,796	64,457	139,191	95,800	24,216	3,295	337	472
15 years	1,360	9.2	14,802	31	129	141	278	781	2,889	5,927	3,727	759	103	12	25
16 years	3,031	8.6	35,446	54	237	316	544	1,880	6,840	14,145	8,961	2,112	264	29	64
17 years	5,090	7.9	64,686	78	374	497	990	3,151	11,974	25,791	17,075	4,129	514	44	69
18 years	7,576	7.5	100,481	103	491	722	1,474	4,786	18,471	39,381	26,988	6,919	929	97	120
19 years	9,657	7.0	139,067	154	612	857	1,836	6,198	24,283	53,947	39,049	10,297	1,485	155	194
20-24 years	48,203	5.8	837,572	765	2,976	4,087	8,796	31,579	129,209	316,493	253,698	75,402	12,313	1,290	964
25-29 years	53,108	5.1	1,051,760	821	3,221	4,494	9,951	34,621	140,532	378,983	343,076	112,725	19,857	2,373	1,106
30-34 years	39,358	5.3	739,209	662	2,424	3,540	7,635	25,097	93,929	254,575	245,593	86,491	16,517	1,928	818
35-39 years	16,412	6.3	261,787	293	1,085	1,514	3,320	10,200	33,815	87,122	84,886	31,724	6,515	934	379
40-44 years	2,754	7.0	39,309	36	194	264	575	1,685	5,212	12,928	12,381	4,692	1,098	168	76
45-49 years	118	10.0	1,180	-	5	13	29	71	162	374	340	142	37	5	2
Black	90,523	13.3	684,336	2,405	8,143	9,405	17,531	53,039	161,159	257,979	137,613	30,531	4,561	719	1,251
Under 15 years	995	15.7	6,338	24	105	112	189	565	1,734	2,520	931	136	8	1	13
15-19 years	20,358	13.5	151,613	482	1,727	2,094	3,877	12,178	39,392	60,185	26,473	4,407	480	60	258
15 years	1,791	14.9	12,023	35	167	206	361	1,022	3,248	4,765	1,891	270	28	4	26
16 years	2,815	13.6	20,734	68	248	287	548	1,664	5,597	8,266	3,427	522	69	7	31
17 years	4,114	13.7	30,124	103	311	434	779	2,487	7,929	11,968	5,160	812	83	9	49
18 years	5,379	13.4	40,171	126	477	508	1,030	3,238	10,282	15,956	7,133	1,207	117	16	81
19 years	6,259	12.9	48,561	150	524	659	1,159	3,767	12,336	19,230	8,862	1,596	183	24	71
20-24 years	26,620	12.3	217,274	666	2,334	2,758	5,117	15,745	51,922	84,663	43,485	8,858	1,146	172	408
25-29 years	21,983	13.1	168,217	632	1,994	2,227	4,202	12,928	37,973	61,669	35,975	8,747	1,349	211	310
30-34 years	14,253	14.3	99,514	437	1,376	1,486	2,791	8,163	21,465	35,110	21,623	5,682	1,031	169	181
35-39 years	5,440	15.3	35,592	145	524	631	1,151	2,989	7,446	11,938	7,838	2,310	462	88	70
40-44 years	842	15.1	5,581	19	80	92	198	453	1,189	1,821	1,243	375	82	18	11
45-49 years	32	15.5	207	-	3	5	6	18	38	73	45	16	3	-	-

Race of child															
White	182,785	5.7	3,225,343	2,932	11,503	16,093	34,663	117,594	457,896	1,167,401	1,018,048	329,924	58,622	6,932	3,735
Under 15 years	495	10.2	4,855	11	43	65	106	270	1,006	1,891	1,183	239	22	4	15
15-19 years	25,842	7.5	343,920	405	1,774	2,443	4,954	16,266	62,554	135,057	92,932	23,563	3,194	327	451
15 years	1,309	9.1	14,345	30	124	136	271	748	2,809	5,736	3,615	739	100	12	25
16 years	2,943	8.6	34,426	50	230	302	520	1,841	6,655	13,725	8,701	2,057	257	29	59
17 years	4,928	7.8	62,846	77	362	479	961	3,049	11,643	25,045	16,606	4,017	496	43	68
18 years	7,316	7.5	97,503	100	467	700	1,426	4,623	17,926	38,212	26,198	6,743	899	94	115
19 years	9,346	6.9	134,800	148	591	826	1,776	6,005	23,521	52,339	37,812	10,007	1,442	149	184
20-24 years	46,937	5.7	817,789	743	2,900	3,974	8,559	30,761	125,981	308,884	248,083	73,688	12,019	1,265	932
25-29 years	52,135	5.0	1,034,573	804	3,162	4,405	9,754	34,010	137,905	372,673	337,804	111,065	19,566	2,338	1,087
30-34 years	38,536	5.3	727,416	646	2,370	3,459	7,461	24,600	92,108	250,375	242,020	85,376	16,291	1,904	806
35-39 years	16,026	6.2	257,113	287	1,057	1,476	3,239	9,967	33,097	85,506	83,528	31,241	6,426	922	367
40-44 years	2,701	7.0	38,525	36	192	258	563	1,652	5,086	12,654	12,160	4,611	1,071	167	75
45-49 years	113	9.8	1,152	-	5	13	27	68	159	361	338	141	33	5	2
Black	93,465	12.9	724,576	2,460	8,336	9,715	18,137	54,817	167,653	272,633	149,237	34,241	5,252	789	1,306
Under 15 years	1,007	15.7	6,426	26	104	115	193	569	1,747	2,557	954	139	8	1	13
15-19 years	20,977	13.2	158,974	492	1,772	2,164	4,000	12,549	40,722	62,998	28,488	4,896	554	68	271
15 years	1,828	14.8	12,347	36	172	210	366	1,044	3,306	4,902	1,965	285	31	4	26
16 years	2,880	13.4	21,451	69	250	299	567	1,695	5,731	8,546	3,613	564	75	7	35
17 years	4,229	13.5	31,398	104	318	448	798	2,561	8,148	12,474	5,499	891	97	10	50
18 years	5,558	13.2	42,268	129	491	522	1,068	3,348	10,670	16,755	7,698	1,346	138	19	84
19 years	6,482	12.6	51,510	154	541	685	1,201	3,901	12,867	20,321	9,713	1,810	213	28	76
20-24 years	27,540	12.0	230,494	682	2,393	2,845	5,295	16,325	54,046	89,674	47,204	10,059	1,348	193	430
25-29 years	22,590	12.7	178,140	644	2,031	2,293	4,328	13,294	39,492	65,199	39,025	9,756	1,528	227	323
30-34 years	14,748	13.9	106,156	450	1,411	1,538	2,908	8,441	22,504	37,402	23,591	6,345	1,196	186	184
35-39 years	5,693	15.0	38,145	147	541	659	1,202	3,144	7,837	12,762	8,566	2,606	514	94	73
40-44 years	875	14.6	6,019	19	81	96	203	476	1,267	1,962	1,364	423	96	20	12
45-49 years	35	15.8	222	-	3	5	8	19	38	79	45	17	8	-	-

¹Less than 2,500 grams (5 lb 8 oz).

²Equivalents of gram weights in terms of pounds and ounces are shown in the Technical notes.

Table 14. Number and percent of births of low birth weight, by race of mother and of child: United States and each State, 1990

[By place of residence]

State	Number ¹					Percent ¹				
	All races ²	Race of mother		Race of child		All races ²	Race of mother		Race of child	
		White	Black	White	Black		White	Black	White	Black
United States	289,418	187,179	90,523	182,785	93,465	7.0	5.7	13.3	5.7	12.9
Alabama	5,334	2,546	2,758	2,531	2,768	8.4	6.2	12.6	6.2	12.6
Alaska	575	325	58	304	68	4.8	4.0	10.9	4.0	9.5
Arizona	4,375	3,645	294	3,575	335	6.4	6.2	11.5	6.2	10.6
Arkansas	2,986	1,825	1,120	1,796	1,135	8.2	6.6	13.2	6.6	13.1
California	35,558	25,783	6,097	24,758	6,720	5.8	5.1	12.5	5.1	11.5
Colorado	4,283	3,662	456	3,585	501	8.0	7.5	15.8	7.5	14.8
Connecticut	3,309	2,410	833	2,347	893	6.6	5.7	13.1	5.6	12.7
Delaware	849	493	345	487	352	7.6	5.9	13.4	5.9	13.2
District of Columbia	1,785	133	1,589	126	1,597	15.1	7.3	17.5	7.3	17.5
Florida	14,813	8,822	5,781	8,682	5,899	7.4	5.9	12.5	5.9	12.3
Georgia	9,747	4,352	5,273	4,272	5,343	8.7	6.2	13.0	6.1	13.0
Hawaii	1,445	347	82	260	107	7.1	5.6	12.2	5.5	11.1
Idaho	928	897	5	879	9	5.7	5.6	*	5.6	*
Illinois	14,785	8,148	6,270	7,949	6,435	7.6	5.5	14.5	5.5	14.3
Indiana	5,648	4,401	1,178	4,313	1,246	6.6	5.8	12.5	5.8	12.1
Iowa	2,124	1,950	136	1,927	152	5.4	5.2	13.0	5.2	11.9
Kansas	2,435	1,982	400	1,947	422	6.2	5.7	12.0	5.7	11.0
Kentucky	3,838	3,197	611	3,172	629	7.1	6.6	12.0	6.5	11.7
Louisiana	6,650	2,462	4,110	2,435	4,126	9.2	6.0	13.8	6.0	13.8
Maine	892	872	4	869	5	5.1	5.1	*	5.2	*
Maryland	6,229	2,821	3,224	2,699	3,310	7.8	5.4	13.0	5.3	12.8
Massachusetts	5,417	4,216	947	4,105	1,028	5.9	5.3	10.5	5.3	10.0
Michigan	11,586	6,740	4,681	6,635	4,743	7.6	5.7	14.7	5.7	14.5
Minnesota	3,437	2,875	352	2,812	394	5.1	4.6	13.7	4.6	12.7
Mississippi	4,159	1,458	2,673	1,444	2,682	9.6	6.5	12.9	6.5	12.9
Missouri	5,637	3,769	1,807	3,708	1,852	7.1	5.8	13.3	5.8	13.1
Montana	715	626	4	603	5	6.2	6.2	*	6.2	*
Nebraska	1,287	1,095	163	1,078	171	5.3	4.9	11.8	4.9	11.0
Nevada	1,563	1,206	269	1,181	279	7.2	6.5	14.1	6.5	12.9
New Hampshire	863	842	10	833	12	4.9	4.9	*	4.9	*
New Jersey	8,489	5,148	3,002	5,005	3,127	7.0	5.5	13.0	5.4	12.8
New Mexico	2,016	1,683	64	1,637	92	7.4	7.5	12.0	7.4	11.9
New York	22,568	13,251	8,444	12,980	8,666	7.6	6.0	13.4	6.0	13.1
North Carolina	8,344	4,207	3,947	4,111	4,013	8.0	5.9	12.8	5.9	12.7
North Dakota	506	456	4	450	7	5.5	5.5	*	5.5	*
Ohio	11,812	8,196	3,507	8,026	3,649	7.1	5.9	13.5	5.9	13.2
Oklahoma	3,106	2,291	579	2,150	609	6.6	6.1	11.5	6.1	11.1
Oregon	2,144	1,926	94	1,858	118	5.0	4.8	10.2	4.8	9.4
Pennsylvania	12,270	8,208	3,860	7,986	4,051	7.1	5.7	15.1	5.7	14.5
Rhode Island	927	754	117	738	132	6.2	5.7	10.3	5.7	10.0
South Carolina	5,107	2,184	2,883	2,154	2,901	8.7	6.1	12.9	6.1	12.8
South Dakota	557	465	5	453	7	5.1	5.1	*	5.1	*
Tennessee	6,152	3,703	2,402	3,662	2,430	8.2	6.5	13.7	6.5	13.5
Texas	21,936	15,834	5,627	15,570	5,824	6.9	6.0	13.0	5.9	12.7
Utah	2,074	1,955	28	1,920	33	5.7	5.7	12.8	5.7	8.6
Vermont	436	431	1	430	1	5.3	5.3	*	5.3	*
Virginia	7,158	4,040	2,943	3,966	2,999	7.2	5.6	12.3	5.6	12.1
Washington	4,177	3,481	337	3,367	403	5.3	4.9	11.6	4.9	9.8
West Virginia	1,599	1,477	114	1,463	126	7.1	6.8	13.2	6.8	13.1
Wisconsin	4,273	3,114	1,026	3,079	1,047	5.9	4.9	14.3	4.9	14.0
Wyoming	515	475	9	468	12	7.4	7.2	*	7.2	*

¹Less than 2,500 grams (5 lb 8 oz).²Includes races other than white and black.

Table 15. Live births by plurality of birth and age of mother, by race of mother: United States, 1990

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	4,158,212	3,290,273	684,336	4,061,319	3,215,017	665,851	93,865	72,617	18,164	3,028	2,639	321
Under 15 years	11,657	4,974	6,338	11,541	4,925	6,273	116	49	65	-	-	-
15-19 years	521,826	354,482	151,613	514,252	349,888	148,826	7,489	4,543	2,756	85	51	31
15 years	27,703	14,802	12,023	27,327	14,614	11,847	371	183	176	5	5	-
16 years	57,901	35,446	20,734	57,176	35,034	20,441	723	411	292	2	1	1
17 years	97,723	64,686	30,124	96,502	64,020	29,586	1,218	666	535	3	-	3
18 years	144,969	100,481	40,171	142,921	99,217	39,446	2,021	1,252	713	27	12	12
19 years	193,530	139,067	48,561	190,326	137,003	47,506	3,156	2,031	1,040	48	33	15
20-24 years	1,093,730	837,572	217,274	1,072,431	822,451	211,651	20,945	14,863	5,539	354	258	84
25-29 years	1,277,108	1,051,760	168,217	1,246,144	1,027,004	162,987	30,020	23,919	5,143	944	837	87
30-34 years	886,063	739,209	99,514	860,478	717,878	96,163	24,466	20,315	3,271	1,119	1,016	80
35-39 years	317,583	261,787	35,592	307,498	253,431	34,311	9,587	7,904	1,245	498	452	36
40-44 years	48,607	39,309	5,581	47,376	38,291	5,435	1,203	993	143	28	25	3
45-49 years	1,638	1,180	207	1,599	1,149	205	39	31	2	-	-	-

¹Includes races other than white and black.

Table 16. Numbers, rates, and ratios of births to unmarried women by age of mother, by race of mother and of child: United States, 1990

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
Race of mother												
All ages	1,165,384	669,698	495,686	455,304	143.8	132.9	179.7	190.5	280.3	203.5	571.1	665.3
Under 15 years	10,675	4,157	6,518	6,240	---	---	---	---	915.8	835.7	975.3	984.5
15-19 years	349,970	199,896	150,074	139,442	42.5	30.6	88.3	106.0	670.7	563.9	896.8	919.7
15 years	24,068	11,625	12,443	11,732	29.6	20.4	65.0	78.8	868.8	785.4	964.5	975.8
16 years	46,309	25,063	21,246	19,894					799.8	707.1	946.2	959.5
17 years	72,021	41,398	30,623	28,476					737.0	640.0	926.9	945.3
18 years	95,961	56,195	39,766	36,875					661.9	559.3	893.9	918.0
19 years	111,611	65,615	45,996	42,465					576.7	471.8	844.5	874.5
20-24 years	403,873	232,529	171,344	157,819	65.1	48.2	124.3	144.8	369.3	277.6	668.9	726.4
25-29 years	229,991	131,967	98,024	89,614	56.0	43.0	94.3	105.3	180.1	125.5	435.0	532.7
30-34 years	118,200	68,400	49,800	44,930	37.6	29.9	57.8	61.5	133.4	92.5	339.1	451.5
35-39 years	44,149	27,050	17,099	14,946	17.3	14.5	24.6	25.5	139.0	103.3	306.5	419.9
40 years and over	8,526	5,699	2,827	2,313	23.6	23.2	25.2	25.1	169.7	140.8	289.8	399.6
Race of child												
All ages	1,165,384	647,376	518,008	472,660	143.8	131.8	183.3	193.9	280.3	200.7	555.3	652.3
Under 15 years	10,675	4,056	6,619	6,314	---	---	---	---	915.8	835.4	973.1	982.6
15-19 years	349,970	193,009	156,961	144,731	42.5	29.5	92.3	110.1	670.7	561.2	882.3	910.4
15 years	24,068	11,250	12,818	12,013	29.6	19.8	67.5	81.2	868.8	784.2	959.6	972.9
16 years	46,309	24,294	22,015	20,458					799.8	705.7	937.8	953.7
17 years	72,021	40,058	31,963	29,472					737.0	637.4	916.4	938.7
18 years	95,961	54,244	41,717	38,403					661.9	556.3	878.9	908.6
19 years	111,611	63,163	48,448	44,385					576.7	468.6	824.9	861.7
20-24 years	403,873	224,596	179,277	164,161	65.1	46.5	130.0	150.6	369.3	274.6	649.7	712.2
25-29 years	229,991	127,875	102,116	92,756	56.0	41.7	98.3	109.0	180.1	123.6	421.0	520.7
30-34 years	118,200	66,119	52,081	46,684	37.6	28.9	60.4	64.0	133.4	90.9	328.3	439.8
35-39 years	44,149	26,187	17,962	15,576	17.3	14.0	25.8	26.5	139.0	101.9	297.0	408.3
40 years and over	8,526	5,534	2,992	2,438	23.6	23.1	25.5	25.3	169.7	139.5	283.1	390.6

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 44 States and the District of Columbia, marital status of mother is reported on the birth certificate; for 6 States, mother's marital status is inferred; see Technical notes.

Table 17. Birth rates for unmarried women by age of mother and race: United States, 1970, 1975, and 1980–90

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

Year and race	Age of mother								
	15–19 years								
	15–44 years ¹	Total	15–17 years	18–19 years	20–24 years	25–29 years	30–34 years	35–39 years	40–44 years ²
All races									
1990 ³	43.8	42.5	29.6	60.7	65.1	56.0	37.6	17.3	3.6
1989 ³	41.6	40.1	28.7	56.0	61.2	52.8	34.9	16.0	3.4
1988 ³	38.5	36.4	26.4	51.5	56.0	48.5	32.0	15.0	3.2
1987 ³	36.0	33.8	24.5	48.9	52.6	44.5	29.6	13.5	2.9
1986 ³	34.2	32.3	22.8	48.0	49.3	42.2	27.2	12.2	2.7
1985 ³	32.8	31.4	22.4	45.9	46.5	39.9	25.2	11.6	2.5
1984 ^{3,4}	31.0	30.0	21.9	42.5	43.0	37.1	23.3	10.9	2.5
1983 ^{3,4}	30.3	29.5	22.0	40.7	41.8	35.5	22.4	10.2	2.6
1982 ^{3,4}	30.0	28.7	21.5	39.6	41.5	35.1	21.9	10.0	2.7
1981 ^{3,4}	29.5	27.9	20.9	39.0	41.1	34.5	20.8	9.8	2.6
1980 ^{3,4}	29.4	27.6	20.6	39.0	40.9	34.0	21.1	9.7	2.6
1980 ^{4,5}	28.4	27.5	20.7	38.7	39.7	31.4	18.5	8.4	2.3
1975 ^{4,5}	24.5	23.9	19.3	32.5	31.2	27.5	17.9	9.1	2.6
1970 ^{5,6}	26.4	22.4	17.1	32.9	38.4	37.0	27.1	13.6	3.5
White									
Race of mother:									
1990 ³	32.9	30.6	20.4	44.9	48.2	43.0	29.9	14.5	3.2
1989 ³	30.2	28.0	19.3	40.2	43.8	39.1	26.8	13.1	2.9
Race of child:									
1990 ³	31.8	29.5	19.8	43.3	46.5	41.7	28.9	14.0	3.1
1989 ³	29.2	27.2	18.7	38.9	42.4	37.9	25.9	12.7	2.8
1988 ³	26.5	24.5	17.1	35.7	38.0	34.2	23.4	11.7	2.6
1987 ³	24.5	22.5	15.8	33.5	35.6	31.0	21.5	10.4	2.3
1986 ³	23.2	21.3	14.5	32.7	33.3	29.4	19.5	9.4	2.1
1985 ³	21.8	20.3	14.2	30.4	30.8	27.5	17.7	8.7	1.9
1984 ^{3,4}	20.1	18.9	13.5	27.3	27.7	24.6	16.2	8.1	1.9
1983 ^{3,4}	19.2	18.4	13.4	25.8	26.3	22.9	15.4	7.5	1.9
1982 ^{3,4}	18.7	17.6	12.9	24.7	25.7	22.2	14.7	7.2	2.0
1981 ^{3,4}	18.1	16.9	12.4	24.1	25.0	21.5	13.6	7.0	1.8
1980 ^{3,4}	17.6	16.2	11.8	23.6	24.4	20.7	13.6	6.8	1.8
1980 ^{4,5}	16.2	15.9	11.7	22.8	22.4	17.3	10.5	5.3	1.4
1975 ^{4,5}	12.4	12.0	9.6	16.5	15.5	14.8	9.8	5.4	1.5
1970 ^{5,6}	13.9	10.9	7.5	17.6	22.5	21.1	14.2	7.6	2.0
All other									
Race of mother:									
1990 ³	79.7	88.3	65.0	120.6	124.3	94.3	57.8	24.6	5.2
1989 ³	80.7	87.8	65.6	119.5	123.5	94.7	57.9	24.3	5.1
Race of child:									
1990 ³	83.3	92.3	67.5	126.8	130.0	98.3	60.4	25.8	5.5
1989 ³	84.0	91.3	67.8	124.9	128.5	98.6	60.5	25.5	5.4
1988 ³	80.3	84.8	64.0	116.6	121.1	93.6	57.5	24.7	5.3
1987 ³	77.0	80.7	61.2	111.0	113.9	88.3	53.8	23.3	5.3
1986 ³	73.8	78.9	59.0	109.7	107.5	81.6	50.5	21.1	4.8
1985 ³	72.4	78.7	59.0	107.7	104.3	77.4	48.5	21.0	4.6
1984 ^{3,4}	70.9	77.8	59.1	104.7	100.4	75.4	44.8	20.3	4.6
1983 ^{3,4}	71.9	77.9	60.1	103.5	100.7	76.7	44.3	19.8	4.9
1982 ^{3,4}	73.7	78.3	60.1	105.6	103.2	78.5	44.3	20.1	5.4
1981 ^{3,4}	74.8	78.2	59.9	106.6	104.6	78.8	45.3	19.6	5.7
1980 ^{3,4}	77.2	81.7	63.1	111.6	106.6	79.1	46.9	19.2	5.6
1980 ^{4,5}	78.0	83.0	64.0	113.4	108.2	79.1	46.2	18.5	5.3
1975 ^{4,5}	79.0	86.3	70.7	114.3	102.1	73.2	47.9	20.0	6.9
1970 ^{5,6}	89.9	90.8	73.3	126.5	121.0	93.8	69.8	32.0	10.7

See footnotes at end of table.

Table 17. Birth rates for unmarried women by age of mother and race: United States, 1970, 1975, and 1980-90—Con.

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

Year and race	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					
Black ⁷									
Race of mother:									
1990 ³	90.5	106.0	78.8	143.7	144.8	105.3	61.5	25.5	5.1
1989 ³	90.7	104.5	78.9	140.9	142.4	102.9	60.5	24.9	5.0
Race of child:									
1990 ³	93.9	110.1	81.2	150.0	150.6	109.0	64.0	26.5	5.3
1989 ³	93.8	107.9	80.9	146.2	147.4	106.4	62.8	26.0	5.2
1988 ³	89.3	99.1	75.6	135.1	137.8	100.5	59.6	25.2	5.2
1987 ³	85.1	93.5	71.6	126.8	129.8	94.6	55.1	23.4	5.0
1986 ³	81.2	90.6	68.4	124.3	121.2	87.4	51.8	21.5	4.6
1985 ³	79.0	89.3	67.9	120.4	116.0	82.0	49.3	21.2	4.4
1984 ^{3,4}	77.0	87.5	67.4	115.6	110.6	80.4	45.4	20.3	4.5
1983 ^{3,4}	78.0	86.8	67.6	113.8	109.9	82.4	45.4	20.2	5.0
1982 ^{3,4}	79.8	86.5	67.2	114.8	112.0	85.5	45.9	20.3	5.4
1981 ^{3,4}	81.3	86.2	66.7	116.1	113.5	85.8	47.2	20.4	5.8
1980 ^{3,4}	82.9	89.2	69.6	120.2	115.1	83.9	48.2	19.6	5.6
1980 ^{4,5}	83.2	90.3	70.6	121.8	116.0	82.9	47.0	18.5	5.5
1975 ^{4,5}	84.2	93.5	76.8	123.8	108.0	75.7	50.0	20.5	7.2
1970 ^{5,6}	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.

NOTE: Rates for 1981-89 have been revised; see Technical notes.

Table 18. Number and ratio of births to unmarried women, by race of mother and of child: United States and each State, 1990

[By place of residence]

State	Number					Ratio per 1,000 live births				
	All races ¹	Race of mother		Race of child		All races ¹	Race of mother		Race of child	
		White	Black	White	Black		White	Black	White	Black
United States	1,165,384	669,698	455,304	647,376	472,660	280.3	203.5	665.3	200.7	652.3
Alabama	19,131	4,921	14,157	4,916	14,162	301.3	119.7	647.4	120.4	642.4
Alaska	3,113	1,390	161	1,254	232	261.6	171.9	300.9	164.6	324.0
Arizona	22,532	17,102	1,571	16,833	1,764	326.6	288.9	612.0	289.6	555.8
Arkansas	10,713	4,710	5,917	4,591	6,009	293.9	171.3	695.7	169.1	692.0
California ²	193,559	154,625	30,536	147,933	35,201	315.9	307.4	623.3	304.2	604.7
Colorado	11,374	9,416	1,576	9,372	1,610	212.5	192.1	545.9	194.7	473.8
Connecticut ²	13,330	8,641	4,401	8,223	4,769	265.9	202.7	691.5	196.8	680.2
Delaware	3,222	1,392	1,815	1,379	1,828	289.9	166.5	702.7	167.2	683.6
District of Columbia	7,692	353	6,899	338	6,912	649.1	193.2	759.6	194.7	755.4
Florida	63,169	31,340	31,385	30,567	32,062	316.9	208.9	676.2	206.7	667.2
Georgia	36,979	10,538	26,293	10,181	26,622	328.2	149.3	649.1	146.2	645.2
Hawaii	5,088	898	119	603	157	248.3	144.9	176.6	128.7	163.5
Idaho	2,738	2,584	10	2,546	25	166.6	162.0	*	161.6	271.7
Illinois	62,148	28,007	33,712	26,726	34,879	317.4	190.2	778.2	184.6	772.3
Indiana	22,562	15,415	6,996	14,864	7,486	261.7	203.4	738.5	199.1	727.2
Iowa	8,282	7,340	766	7,242	842	210.2	194.7	730.9	193.9	659.4
Kansas	8,397	6,095	2,099	5,818	2,343	215.2	175.4	628.1	170.9	610.6
Kentucky	12,829	9,285	3,496	9,251	3,528	236.0	190.0	685.8	190.7	656.9
Louisiana	26,601	6,425	19,971	6,311	20,050	368.5	155.8	672.0	154.9	668.0
Maine	3,931	3,815	37	3,775	50	226.5	224.2	385.4	223.9	306.7
Maryland	23,789	8,497	14,961	7,833	15,578	296.5	162.1	601.5	153.7	598.7
Massachusetts	22,886	16,548	5,479	15,798	6,138	247.0	207.0	607.9	201.8	598.9
Michigan ²	40,289	17,410	22,477	17,396	22,486	262.1	146.2	703.4	148.0	683.5
Minnesota	14,192	10,896	1,890	10,514	2,134	208.7	175.8	732.8	172.3	687.7
Mississippi	17,627	2,973	14,507	2,912	14,557	404.6	133.3	699.1	131.5	697.6
Missouri	22,643	12,147	10,308	11,909	10,507	285.7	187.9	759.7	186.8	744.4
Montana	2,757	1,801	18	1,713	26	237.4	179.6	*	177.1	346.7
Nebraska	5,056	3,798	980	3,680	1,061	207.4	169.6	710.7	166.6	683.6
Nevada ²	5,480	3,946	1,263	3,876	1,315	253.7	212.4	662.3	214.1	609.4
New Hampshire	2,967	2,914	42	2,861	61	168.9	168.7	371.7	167.1	331.5
New Jersey	29,756	14,711	14,677	13,989	15,336	243.3	155.9	635.5	151.1	625.9
New Mexico	9,704	6,893	304	6,785	365	354.1	305.0	566.1	306.3	468.5
New York ²	98,110	53,660	42,700	52,063	44,132	329.7	243.1	674.4	240.1	665.2
North Carolina	30,718	10,083	19,816	9,644	20,162	293.9	141.7	644.1	138.1	637.0
North Dakota	1,699	1,172	16	1,148	20	183.7	140.4	*	139.7	168.1
Ohio	48,289	28,652	19,397	27,560	20,408	289.3	205.9	747.3	201.1	737.3
Oklahoma	11,998	6,995	3,311	6,668	3,443	251.8	185.1	649.2	187.2	621.5
Oregon	11,041	9,782	656	9,433	837	257.4	245.1	713.8	242.6	663.8
Pennsylvania	49,258	29,049	19,793	27,210	21,476	286.4	202.4	774.9	193.4	769.9
Rhode Island	3,997	3,027	729	2,905	833	263.0	225.3	629.5	221.7	621.2
South Carolina	19,148	5,217	13,857	5,132	13,934	326.7	146.5	618.1	145.7	613.9
South Dakota	2,515	1,327	18	1,263	39	228.7	144.7	*	140.9	288.9
Tennessee	22,662	10,037	12,506	9,815	12,716	302.3	177.3	710.8	175.3	704.7
Texas ²	55,435	33,983	20,941	33,981	20,943	175.2	127.7	483.0	129.4	456.1
Utah	4,910	4,333	116	4,216	174	135.3	125.8	527.3	124.2	450.8
Vermont	1,666	1,645	9	1,626	19	201.4	200.5	*	199.1	*
Virginia	25,874	10,921	14,631	10,785	14,753	260.4	151.0	612.8	151.6	596.2
Washington	18,746	15,417	1,579	14,514	2,170	236.5	218.2	543.0	212.7	523.4
West Virginia	5,743	5,144	587	5,118	614	254.3	238.2	680.2	238.3	636.9
Wisconsin	17,656	11,205	5,789	11,114	5,845	242.2	177.0	806.9	177.3	778.3
Wyoming	1,383	1,223	30	1,192	47	198.0	185.9	447.8	184.1	439.3

¹Includes races other than white and black.²Marital status of mother is inferred: see Technical notes.

Table 19. Live births by interval since last live birth, live-birth order, and race of mother: United States, 1990
 [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 mother	Total, second and higher order births ¹	Live-birth order						
		2	3	4	5	6	7	8 and over
All races²								
All intervals.	2,442,537	1,330,852	678,709	261,277	97,196	39,342	17,453	17,708
0 months (plural deliveries).	42,027	15,657	13,620	7,333	3,143	1,236	533	505
1-11 months	40,061	17,404	11,300	6,076	2,790	1,312	628	551
12-17 months	267,649	127,580	74,154	36,572	15,622	6,886	3,308	3,527
18-23 months	320,767	170,840	85,636	37,377	14,554	6,333	2,826	3,201
24-35 months	533,284	308,204	136,786	53,056	19,442	8,145	3,733	3,918
36-47 months	349,341	205,875	93,020	31,758	10,997	4,177	1,725	1,789
48-59 months	225,008	126,684	65,131	21,559	7,080	2,569	1,077	908
60-71 months	150,015	81,196	46,272	14,754	4,853	1,712	680	548
72 months or more	378,576	201,985	118,695	38,204	12,567	4,245	1,648	1,232
Not stated	135,809	75,427	34,095	14,588	6,148	2,727	1,295	1,529
White								
All intervals.	1,910,367	1,075,049	529,727	191,827	66,430	25,498	10,873	10,963
0 months (plural deliveries).	32,540	12,782	10,781	5,437	2,187	767	309	277
1-11 months	24,264	11,946	6,810	3,193	1,269	576	254	216
12-17 months	189,192	97,638	52,111	23,428	8,942	3,646	1,682	1,745
18-23 months	252,393	140,153	66,366	27,668	10,082	4,220	1,826	2,078
24-35 months	439,530	262,639	110,616	40,919	14,320	5,745	2,546	2,745
36-47 months	289,257	174,229	76,425	24,942	8,200	3,025	1,194	1,242
48-59 months	183,238	104,426	53,374	16,884	5,329	1,838	760	627
60-71 months	119,841	65,205	37,549	11,423	3,606	1,220	459	379
72 months or more	286,667	152,185	92,074	28,534	8,969	2,954	1,122	829
Not stated	93,445	53,846	23,621	9,399	3,526	1,507	721	825
Black								
All intervals.	424,574	199,818	121,814	57,647	25,052	10,780	4,899	4,564
0 months (plural deliveries).	8,086	2,315	2,447	1,659	867	409	200	189
1-11 months	13,371	4,530	3,881	2,492	1,309	615	292	252
12-17 months	63,891	23,500	18,586	11,270	5,579	2,538	1,238	1,180
18-23 months	53,700	23,319	15,741	7,994	3,594	1,593	720	739
24-35 months	71,736	33,565	20,987	9,795	4,008	1,816	827	738
36-47 months	46,205	23,710	13,236	5,483	2,174	873	364	365
48-59 months	32,624	17,088	9,386	3,766	1,414	549	240	181
60-71 months	23,812	12,657	6,920	2,646	951	361	160	117
72 months or more	76,390	41,873	21,776	8,044	2,917	1,033	428	319
Not stated	34,759	17,261	8,854	4,498	2,239	993	430	484

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

Table 20. Live births by educational attainment of mother and of father and race: Total of 48 reporting States, the District of Columbia, and New York City, 1990

Years of school completed	Education and race of mother			Education and race of father		
	All races ¹	White	Black	All races ^{1,2}	White	Black
Total	3,916,583	3,077,143	664,880	3,916,583	2,770,860	411,709
0-5 years	67,708	53,902	3,083	77,534	53,084	3,109
6 years	70,581	66,595	1,984	64,382	61,739	925
7 years	27,308	21,251	4,591	16,459	14,509	917
8 years	80,884	64,626	13,251	48,909	44,314	2,806
9 years	166,987	131,660	30,131	91,849	83,314	5,875
10 years	220,577	157,689	54,517	123,407	103,969	14,663
11 years	284,999	186,153	89,276	174,221	136,770	31,491
12 years	1,479,183	1,141,432	282,961	1,278,124	1,030,688	202,164
13 years	295,546	236,763	49,807	189,590	157,565	25,588
14 years	363,653	291,617	55,533	302,790	252,602	36,273
15 years	124,076	97,546	19,778	103,336	84,146	13,539
16 years	447,938	388,632	33,427	437,539	385,704	29,193
17 years or more	226,105	195,656	13,704	328,162	287,632	14,981
Not stated	61,038	43,621	12,837	680,281	74,824	30,185

¹Includes races other than white and black.
²Includes births with race of father not stated.

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

Table 21. Live births by educational attainment of mother and age of mother, by race of mother and of child: Total of 48 reporting States, the District of Columbia, and New York City, 1990

Age of mother and race	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 races ¹	3,916,583	246,481	672,563	1,479,183	783,275	674,043	61,038
Under 15 years	11,279	8,451	2,329	-	-	-	499
15-19 years	500,566	51,099	266,075	157,228	18,304	-	7,860
15 years	26,776	9,426	16,612	-	-	-	738
16 years	55,759	8,934	44,431	1,414	-	-	980
17 years	93,968	9,446	70,335	12,511	200	-	1,476
18 years	138,947	11,087	69,557	53,186	3,119	-	1,998
19 years	185,116	12,206	65,140	90,117	14,985	-	2,668
20-24 years	1,039,209	65,841	216,336	505,521	197,501	39,612	14,398
25-29 years	1,198,646	57,797	117,466	469,638	296,660	239,083	18,002
30-34 years	824,607	39,163	51,069	257,932	196,109	266,581	13,753
35-39 years	295,437	18,916	16,306	77,188	65,515	112,051	5,461
40 years and over	46,839	5,214	2,982	11,676	9,186	16,716	1,065
Race of mother							
White	3,077,143	206,374	475,502	1,141,432	625,926	584,288	43,621
Under 15 years	4,771	3,596	952	-	-	-	223
15-19 years	337,793	40,615	174,660	105,296	12,231	-	4,991
15 years	14,213	5,381	8,419	-	-	-	413
16 years	33,927	6,599	25,858	882	-	-	588
17 years	61,833	7,945	45,048	7,762	139	-	939
18 years	95,669	9,841	47,856	34,703	2,012	-	1,257
19 years	132,151	10,849	47,479	61,949	10,080	-	1,794
20-24 years	790,926	58,698	162,831	378,227	149,011	32,278	9,881
25-29 years	981,210	50,607	88,042	379,595	242,130	207,528	13,308
30-34 years	683,250	33,293	36,156	209,125	161,611	232,650	10,415
35-39 years	241,745	15,529	10,833	60,319	53,487	97,524	4,053
40 years and over	37,448	4,036	2,028	8,870	7,456	14,308	750
Black	664,880	22,909	173,924	282,961	125,118	47,131	12,837
Under 15 years	6,181	4,633	1,296	-	-	-	252
15-19 years	147,790	8,753	83,795	47,284	5,461	-	2,497
15 years	11,722	3,773	7,645	-	-	-	304
16 years	20,198	2,094	17,268	493	-	-	343
17 years	29,364	1,187	23,284	4,364	54	-	475
18 years	39,177	892	19,743	16,909	991	-	642
19 years	47,329	807	15,855	25,518	4,416	-	733
20-24 years	211,276	3,174	47,060	111,231	41,333	4,968	3,510
25-29 years	163,071	2,590	24,497	72,680	42,908	17,036	3,360
30-34 years	96,485	2,160	12,112	37,336	25,788	16,909	2,180
35-39 years	34,470	1,232	4,394	12,401	8,459	7,103	881
40 years and over	5,607	367	770	2,029	1,169	1,115	157
Race of child							
White	3,016,514	204,685	463,347	1,116,866	612,770	575,956	42,890
Under 15 years	4,660	3,521	920	-	-	-	219
15-19 years	327,857	40,076	169,338	101,757	11,809	-	4,877
15 years	13,777	5,282	8,090	-	-	-	405
16 years	32,970	6,491	25,051	849	-	-	579
17 years	60,119	7,844	43,733	7,492	134	-	916
18 years	92,868	9,735	46,438	33,542	1,930	-	1,223
19 years	128,123	10,724	46,026	59,874	9,745	-	1,754
20-24 years	772,395	58,243	158,995	368,891	144,978	31,618	9,670
25-29 years	965,195	50,317	86,176	373,005	237,722	204,853	13,122
30-34 years	672,301	33,085	35,313	205,437	158,660	229,546	10,260
35-39 years	237,419	15,426	10,613	59,104	52,346	95,933	3,997
40 years and over	36,687	4,017	1,992	8,672	7,255	14,006	745
Black	702,537	24,035	182,319	298,852	132,923	51,046	13,362
Under 15 years	6,267	4,694	1,319	-	-	-	254
15-19 years	154,739	9,109	87,541	49,760	5,751	-	2,578
15 years	12,033	3,842	7,882	-	-	-	309
16 years	20,878	2,164	17,846	515	-	-	353
17 years	30,550	1,251	24,208	4,539	57	-	495
18 years	41,159	961	20,752	17,734	1,052	-	660
19 years	50,119	891	16,853	26,972	4,642	-	761
20-24 years	223,667	3,462	49,672	117,516	43,988	5,355	3,674
25-29 years	172,353	2,782	25,706	76,624	45,424	18,321	3,496
30-34 years	102,655	2,312	12,725	39,614	27,422	18,301	2,281
35-39 years	36,825	1,296	4,560	13,187	9,067	7,799	916
40 years and over	6,031	380	796	2,151	1,271	1,270	163

¹Includes races other than white and black.

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

Table 22. Live births by Hispanic origin of mother and by race of mother for mothers of non-Hispanic origin: Total of 48 reporting States and the District of Columbia and each State, 1990

[By place of residence]

State	Origin of mother										
	Hispanic							Non-Hispanic			
	All origins	Total	Mexican	Puerto Rican	Cuban	Central and South American	Other and unknown Hispanic	Total ¹	White	Black	Not stated
All reporting States	4,092,994	595,073	385,640	58,807	11,311	83,008	56,307	3,457,417	2,626,500	661,701	40,504
Alabama	63,487	344	160	57	12	43	72	63,104	40,778	21,830	39
Alaska	11,902	328	200	39	7	25	57	11,567	7,779	529	7
Arizona	68,995	19,663	18,943	163	20	276	261	49,256	39,775	2,527	76
Arkansas	36,457	414	246	32	2	23	111	35,925	27,055	8,492	118
California	612,628	245,592	200,129	2,015	913	28,418	14,117	362,993	255,913	48,004	4,043
Colorado	53,525	9,278	4,668	121	24	329	4,136	44,159	39,791	2,832	88
Connecticut	50,123	5,318	169	3,869	78	615	587	40,381	34,207	5,199	4,424
Delaware	11,113	323	84	186	7	19	27	10,785	8,055	2,564	5
District of Columbia	11,850	890	44	20	8	781	37	10,904	1,640	9,030	56
Florida	199,339	27,570	5,003	4,295	7,380	8,614	2,278	171,594	123,514	45,362	175
Georgia	112,666	2,263	1,311	277	58	367	250	109,961	68,005	40,412	442
Hawaii	20,489	2,437	348	628	16	46	1,399	18,050	5,472	651	2
Idaho	16,433	1,434	1,195	11	1	32	195	14,968	14,521	42	31
Illinois	195,790	24,245	17,653	3,406	241	1,267	1,678	169,681	122,854	41,808	1,864
Indiana	86,214	1,856	1,355	248	13	55	185	84,057	73,933	9,386	301
Iowa	39,409	623	379	8	2	28	206	38,758	37,080	1,038	28
Kansas	39,020	1,954	1,595	73	17	84	185	36,827	32,629	3,318	239
Kentucky	54,362	274	178	47	2	16	31	54,021	48,574	5,065	67
Louisiana	72,192	941	202	57	52	563	67	71,221	40,547	29,688	30
Maine	17,359	127	28	13	3	6	77	16,397	16,081	83	835
Maryland	80,245	2,523	547	218	83	1,564	111	75,637	49,463	23,716	2,085
Massachusetts	92,654	8,425	286	4,872	120	2,894	253	83,509	72,261	7,585	720
Michigan	153,700	4,326	2,560	383	62	233	1,088	143,083	109,182	31,440	6,291
Minnesota	68,013	1,050	781	56	13	65	135	63,845	58,476	2,211	3,118
Mississippi	43,563	116	47	9	3	11	46	43,418	22,161	20,748	29
Missouri	79,260	970	728	66	16	74	86	78,108	63,574	13,538	182
Montana	11,613	292	145	7	1	13	126	10,916	9,373	35	405
Nebraska	24,380	802	517	9	2	16	258	23,310	21,332	1,376	268
Nevada	21,599	3,261	2,483	55	93	312	318	18,305	15,378	1,887	33
New Jersey	122,289	16,972	874	7,081	877	4,582	3,558	105,000	78,423	22,130	317
New Mexico	27,402	12,193	2,831	40	25	55	9,242	15,201	10,527	512	8
New York	297,576	53,140	3,827	22,405	626	22,501	3,781	234,989	165,220	56,998	9,447
North Carolina	104,525	1,754	987	277	30	231	229	102,760	69,512	30,726	11
North Dakota	9,250	123	75	8	1	8	31	9,058	8,160	80	69
Ohio	166,913	2,427	1,009	917	35	128	338	164,294	136,756	25,809	192
Oregon	42,891	2,974	2,647	46	14	122	145	39,900	37,045	912	17
Pennsylvania	171,961	5,636	399	4,306	75	414	442	166,170	138,116	25,221	155
Rhode Island	15,195	1,560	87	509	14	796	154	12,915	11,300	1,019	720
South Carolina	58,610	571	266	116	15	10	164	57,949	35,055	22,336	90
South Dakota	10,999	113	72	11	1	8	21	10,880	9,076	68	6
Tennessee	74,962	444	231	64	20	72	57	74,501	56,178	17,582	17
Texas	316,423	115,845	103,031	773	231	4,789	7,021	200,153	150,304	43,121	425
Utah	36,277	2,043	1,238	66	5	147	587	34,214	32,450	214	20
Vermont	8,273	30	7	10	1	6	6	7,258	7,204	17	985
Virginia	99,352	3,459	630	349	54	2,086	340	95,692	68,944	23,770	201
Washington	79,251	5,700	3,869	163	19	166	1,483	71,795	63,707	2,759	1,756
West Virginia	22,585	73	24	3	4	4	38	22,498	21,545	859	14
Wisconsin	72,895	1,866	1,229	419	15	78	125	70,986	61,496	7,108	43
Wyoming	6,985	511	323	4	-	16	168	6,464	6,079	64	10

¹Includes races other than white and black.

Table 23. Number and percent distribution of live births by race of mother and of child, according to Hispanic origin of mother: Total of 48 reporting States and the District of Columbia, 1990

Race	Origin of mother								
	All origins	Total	Hispanic					Non-Hispanic	Not stated
			Mexican	Puerto Rican	Cuban	Central and South American	Other and unknown Hispanic		
Race of mother									
All races	4,092,994	595,073	385,640	58,807	11,311	83,008	56,307	3,457,417	40,504
White	3,235,195	577,692	383,080	55,946	10,983	75,643	52,040	2,626,500	31,003
Black	679,123	10,194	1,035	2,138	288	5,429	1,304	661,701	7,228
Other	178,676	7,187	1,525	723	40	1,936	2,963	169,216	2,273
Percent distribution									
All races	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
White	79.0	97.1	99.3	95.1	97.1	91.1	92.4	76.0	76.5
Black	16.6	1.7	0.3	3.6	2.5	6.5	2.3	19.1	17.8
Other	4.4	1.2	0.4	1.2	0.4	2.3	5.3	4.9	5.6
Race of child									
All races	4,092,994	595,073	385,640	58,807	11,311	83,008	56,307	3,457,417	40,504
White	3,172,595	563,816	376,497	52,192	10,822	74,155	50,150	2,578,325	30,454
Black	718,852	19,910	5,051	5,494	395	6,417	2,553	691,407	7,535
Other	201,547	11,347	4,092	1,121	94	2,436	3,604	187,685	2,515
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	94.7	97.6	88.8	95.7	89.3	89.1	74.6	75.2
Black	17.6	3.3	1.3	9.3	3.5	7.7	4.5	20.0	18.6
Other	4.9	1.9	1.1	1.9	0.8	2.9	6.4	5.4	6.2

NOTE: Excludes New Hampshire and Oklahoma, which did not report Hispanic origin of mother on the birth certificate.

Table 24. Birth and fertility rates, total fertility rates, and birth rates by age of mother, by Hispanic origin of mother, and by race of mother for mothers of non-Hispanic origin: Total of 48 reporting States and the District of Columbia, 1990

[Birth rates by age of mother are live births per 1,000 women in specified group]

Measure	Origin of mother								
	All origins ¹	Total	Hispanic				Non-Hispanic ¹		
			Mexican	Puerto Rican	Cuban	Other Hispanic ²	Total ³	White	Black
Birth rate ⁴	16.7	26.7	28.7	21.6	10.9	27.5	15.7	14.4	23.0
Fertility rate ⁵	71.0	107.7	118.9	82.9	52.6	102.7	67.1	62.8	89.0
Total fertility rate ⁶	2,083.0	2,959.5	3,214.0	2,301.0	1,459.5	2,877.0	1,979.5	1,850.5	2,547.5
Birth rates by age of mother ⁷									
10-14 years	1.4	2.4	2.5	2.9	*	2.1	1.3	0.5	5.0
15-19 years	59.9	100.3	108.0	101.6	30.3	86.0	54.8	42.5	116.2
20-24 years	116.4	181.0	200.3	150.1	64.6	162.9	108.1	97.5	165.1
25-29 years	120.3	153.0	165.3	109.9	95.4	155.8	116.5	115.3	118.4
30-34 years	81.0	98.3	104.4	62.8	67.6	106.9	79.2	79.4	70.2
35-39 years	31.9	45.3	49.1	26.2	28.2	49.4	30.7	30.0	28.7
40-44 years	5.5	10.9	12.4	6.2	4.9	11.6	5.1	4.7	5.6
45-49 years	0.2	0.7	0.8	0.5	*	0.7	0.2	0.2	0.3

¹Includes origin not stated.

²Includes Central and South American and other and unknown Hispanic.

³Includes races other than white and black.

⁴Rate per 1,000 total population.

⁵Rate per 1,000 women aged 15-44 years.

⁶Rates are sums of birth rates for 5-year age groups multiplied by 5.

⁷Rates per 1,000 women in specified group.

NOTE: Excludes New Hampshire and Oklahoma, which did not report Hispanic origin of mother on the birth certificate.

Table 25. Live births by age and Hispanic origin of mother and by race of mother for mothers of non-Hispanic origin: Total of 48 reporting States and the District of Columbia, 1990

Age of mother	Origin of mother									
	All origins ¹	Total	Hispanic					Non-Hispanic		
			Mexican	Puerto Rican	Cuban	Central and South American	Other and unknown Hispanic	Total ²	White	Black
All ages	4,092,994	595,073	385,640	58,807	11,311	83,008	56,307	3,457,417	2,626,500	661,701
Under 15 years	11,535	2,346	1,556	360	16	132	282	9,104	2,602	6,204
15-19 years	512,978	97,685	66,615	12,420	851	7,377	10,422	410,841	249,954	147,521
15 years	27,363	5,790	3,849	837	35	383	686	21,340	8,854	11,736
16 years	57,033	12,064	8,112	1,678	87	782	1,405	44,475	22,793	20,227
17 years	96,055	19,329	13,222	2,485	165	1,351	2,106	75,867	44,127	29,287
18 years	142,503	26,839	18,514	3,333	251	2,009	2,732	114,471	71,752	39,055
19 years	190,024	33,663	22,918	4,087	313	2,852	3,493	154,688	102,428	47,216
20-24 years	1,075,072	189,193	127,893	19,811	2,176	22,207	17,106	876,268	631,233	210,491
25-29 years	1,256,814	166,105	104,560	15,071	4,420	26,704	15,350	1,078,760	863,490	162,091
30-34 years	873,275	96,079	58,438	7,834	2,680	17,882	9,245	767,560	627,057	95,653
35-39 years	313,630	36,374	22,113	2,729	1,006	7,249	3,277	273,220	219,811	34,215
40-44 years	48,067	6,971	4,270	550	156	1,393	602	40,386	31,508	5,341
45-49 years	1,623	320	195	32	6	64	23	1,278	845	185

¹Includes origin not stated.

²Includes races other than white and black.

NOTE: Excludes New Hampshire and Oklahoma, which did not report Hispanic origin of mother on the birth certificate.

Table 26. Percent of births with selected characteristics, by Hispanic origin of mother and by race of mother for mothers of non-Hispanic origin: Total of 48 reporting States and the District of Columbia, 1990

Characteristic	Origin of mother									
	All origins ¹	Total	Hispanic					Non-Hispanic		
			Mexican	Puerto Rican	Cuban	Central and South American	Other and unknown Hispanic	Total ²	White	Black
Fourth and higher order births	10.5	15.4	17.2	13.2	6.0	12.5	11.7	9.6	8.0	15.2
Births to unmarried mothers	28.1	36.7	33.3	55.9	18.2	41.2	37.2	26.6	16.9	66.7
Mothers completing 12 years or more of school ³	76.1	46.1	38.6	57.2	82.1	55.8	66.7	81.5	84.8	69.9
Mothers born in the United States	84.3	38.8	38.2	56.7	20.6	4.4	79.1	92.1	95.8	93.2
Mothers who began prenatal care in the first trimester	75.8	60.2	57.8	63.5	84.8	61.5	66.4	78.5	83.3	60.7
Mothers who had late or no prenatal care	6.1	12.0	13.2	10.6	2.8	10.9	8.5	5.1	3.4	11.2
Births of low birth weight ⁴	7.0	6.1	5.5	9.0	5.7	5.8	6.9	7.1	5.6	13.3
Preterm births ⁵	10.6	11.0	10.6	13.4	9.8	10.9	11.2	10.6	8.5	18.9
1-minute Apgar score less than 7 ⁶	8.6	7.4	8.0	7.2	5.1	6.5	8.4	8.7	8.1	11.3
5-minute Apgar score less than 7 ⁶	1.5	1.4	1.3	1.5	1.2	1.1	1.5	1.5	1.3	2.8

¹Includes origin not stated.

²Includes races other than white and black.

³Excludes data for New York State (exclusive of New York City) 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.

NOTE: Excludes New Hampshire and Oklahoma, which did not report Hispanic origin of mother on the birth certificate.

Table 27. Live births by age of mother, by specified race of mother and of child: United States, 1990

Age of mother	All races ¹	White	Black	American Indian ²	Asian or Pacific Islander				
					Chinese	Japanese	Hawaiian	Filipino	Other
Race of mother									
All ages	4,158,212	3,290,273	684,336	39,051	22,737	8,674	6,099	25,770	78,355
Under 15 years	11,657	4,974	6,338	155	4	2	14	20	140
15-19 years	521,826	354,482	151,613	7,468	271	247	1,107	1,541	4,796
15 years	27,703	14,802	12,023	414	7	9	63	52	311
16 years	57,901	35,446	20,734	872	27	16	109	147	525
17 years	97,723	64,686	30,124	1,384	51	46	211	297	873
18 years	144,969	100,481	40,171	2,065	71	76	311	435	1,269
19 years	193,530	139,067	48,561	2,733	115	100	413	610	1,818
20-24 years	1,093,730	837,572	217,274	12,815	1,799	774	1,941	4,789	15,971
25-29 years	1,277,108	1,051,760	168,217	10,306	7,584	2,505	1,722	7,500	26,606
30-34 years	886,063	739,209	99,514	5,676	8,742	3,392	902	7,394	20,623
35-39 years	317,583	261,787	35,592	2,218	3,721	1,504	358	3,763	8,390
40-44 years	48,607	39,309	5,581	398	598	246	51	738	1,646
45-49 years	1,638	1,180	207	15	18	4	4	25	183
Race of child									
All ages	4,158,212	3,225,343	724,576	49,014	24,267	10,476	8,744	27,272	84,804
Under 15 years	11,657	4,855	6,426	168	4	2	17	25	150
15-19 years	521,826	343,920	158,974	9,131	327	261	1,441	1,824	5,544
15 years	27,703	14,345	12,347	485	10	6	71	73	341
16 years	57,901	34,426	21,451	1,012	32	13	140	184	610
17 years	97,723	62,846	31,398	1,669	61	44	271	360	1,006
18 years	144,969	97,503	42,268	2,527	85	86	394	511	1,485
19 years	193,530	134,800	51,510	3,438	139	112	565	696	2,102
20-24 years	1,093,730	817,789	230,494	16,038	1,959	988	2,664	5,287	17,514
25-29 years	1,277,108	1,034,573	178,140	13,104	8,069	3,051	2,544	7,996	28,492
30-34 years	886,063	727,416	106,156	7,241	9,234	3,999	1,441	7,636	22,153
35-39 years	317,583	257,113	38,145	2,810	4,013	1,868	537	3,766	9,005
40-44 years	48,607	38,525	6,019	502	639	302	96	714	1,759
45-49 years	1,638	1,152	222	20	22	5	4	24	187

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

Table 28. Birth rates by age and specified race of mother: United States, 1990

[Birth rates by age of mother are live births per 1,000 women in specified group]

Measure	All races ¹	White	Black	American Indian ²	Asian or Pacific Islander
Birth rate ³	16.7	15.8	22.4	18.9	19.0
Fertility rate ⁴	70.9	68.3	86.8	76.2	69.6
Birth rates by age of mother					
10-14 years	1.4	0.7	4.9	1.6	0.7
15-19 years	59.9	50.8	112.8	81.1	26.4
15-17 years	37.5	29.5	82.3	48.5	16.0
18-19 years	88.6	78.0	152.9	129.3	40.2
20-24 years	116.5	109.8	160.2	148.7	79.2
25-29 years	120.2	120.7	115.5	110.3	126.3
30-34 years	80.8	81.7	68.7	61.5	106.5
35-39 years	31.7	31.5	28.1	27.5	49.6
40-44 years	5.5	5.2	5.5	5.9	10.7
45-49 years	0.2	0.2	0.3	0.3	1.1

¹Includes births of other races not shown separately.²Includes births to Aleuts and Eskimos.³Rate per 1,000 total population.⁴Rate per 1,000 women aged 15-44 years.

Table 29. Live births by birth weight and percent low birth weight, by specified race of mother and of child: United States, 1990

Birth weight ¹	All races ²	White	Black	American Indian ³	Asian or Pacific Islander				
					Chinese	Japanese	Hawaiian	Filipino	Other
Race of mother					Number				
Total	4,158,212	3,290,273	684,336	39,051	22,737	8,674	6,099	25,770	78,355
Less than 2,500 grams	289,418	187,179	90,523	2,380	1,065	534	441	1,879	5,203
Less than 500 grams	5,555	3,010	2,405	38	9	8	4	19	61
500-999 grams	20,533	11,791	8,143	149	33	25	22	100	259
1,000-1,499 grams	26,827	16,513	9,405	207	75	30	33	151	397
1,500-1,999 grams	55,087	35,540	17,531	460	188	80	73	305	867
2,000-2,499 grams	181,416	120,325	53,039	1,526	760	391	309	1,304	3,619
2,500-2,999 grams	665,737	468,339	161,159	5,799	4,292	1,971	1,117	5,514	16,999
3,000-3,499 grams	1,524,675	1,191,605	257,979	13,846	10,013	3,712	2,301	10,713	33,317
3,500-3,999 grams	1,220,843	1,036,984	137,613	11,898	5,873	1,987	1,682	6,005	18,076
4,000-4,499 grams	378,003	335,641	30,531	4,072	1,291	422	480	1,421	3,960
4,500-4,999 grams	66,178	59,654	4,561	838	155	45	68	192	631
5,000 grams or more	8,054	7,039	719	138	31	2	4	28	86
Not stated	5,304	3,832	1,251	80	17	1	6	18	83
					Percent				
Less than 2,500 grams	7.0	5.7	13.3	6.1	4.7	6.2	7.2	7.3	6.6
Race of child					Number				
Total	4,158,212	3,225,343	724,576	49,014	24,267	10,476	8,744	27,272	84,804
Less than 2,500 grams	289,418	182,785	93,465	2,995	1,123	640	636	1,929	5,571
Less than 500 grams	5,555	2,932	2,460	47	11	11	7	22	63
500-999 grams	20,533	11,503	8,336	189	32	32	32	110	284
1,000-1,499 grams	26,827	16,093	9,715	260	89	38	50	141	419
1,500-1,999 grams	55,087	34,663	18,137	582	204	109	111	306	922
2,000-2,499 grams	181,416	117,594	54,817	1,917	787	450	436	1,350	3,883
2,500-2,999 grams	665,737	457,896	167,653	7,300	4,532	2,206	1,579	5,817	18,072
3,000-3,499 grams	1,524,675	1,167,401	272,633	17,515	10,661	4,446	3,381	11,337	35,790
3,500-3,999 grams	1,220,843	1,018,048	149,237	14,901	6,338	2,503	2,364	6,464	20,053
4,000-4,499 grams	378,003	329,924	34,241	5,020	1,398	603	678	1,468	4,426
4,500-4,999 grams	66,178	58,622	5,252	1,025	165	71	93	209	699
5,000 grams or more	8,054	6,932	789	161	31	3	6	27	96
Not stated	5,304	3,735	1,306	97	19	4	7	21	97
					Percent				
Less than 2,500 grams	7.0	5.7	12.9	6.1	4.6	6.1	7.3	7.1	6.6

¹Equivalents of the gram weights in pounds and ounces are shown in the Technical notes.

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 and age of mother, by race of mother and of child: United States, 1990

Age of mother and race	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 races ¹	4,158,212	2,234,829	850,121	735,783	167,270	80,406	89,803
Under 15 years	11,657	2,320	1,923	4,686	1,548	730	450
15-19 years	521,826	164,672	115,115	167,779	41,945	18,331	13,984
15 years	27,703	6,609	5,536	10,396	2,962	1,288	912
16 years	57,901	15,506	12,224	20,756	5,322	2,326	1,767
17 years	97,723	28,897	21,510	32,703	8,380	3,490	2,743
18 years	144,969	45,806	32,535	46,322	11,440	5,126	3,740
19 years	193,530	67,854	43,310	57,602	13,841	6,101	4,822
20-24 years	1,093,730	500,180	236,350	246,441	58,450	26,925	25,384
25-29 years	1,277,108	767,680	255,391	173,767	36,487	18,748	25,035
30-34 years	886,063	570,854	170,208	98,121	19,439	10,444	16,997
35-39 years	317,583	200,754	61,098	37,265	7,589	4,282	6,595
40 years and over	50,245	28,369	10,036	7,724	1,812	946	1,358
Race of mother							
White	3,290,273	1,886,321	671,842	512,670	113,282	46,494	59,664
Under 15 years	4,974	1,073	867	1,849	682	317	186
15-19 years	354,482	119,327	82,006	108,203	26,503	10,209	8,234
15 years	14,802	3,848	3,149	5,230	1,534	624	417
16 years	35,446	10,128	7,882	12,141	3,107	1,238	950
17 years	64,686	20,147	14,938	20,784	5,251	1,958	1,608
18 years	100,481	33,696	23,537	30,675	7,443	2,867	2,263
19 years	139,067	51,508	32,500	39,373	9,168	3,522	2,996
20-24 years	837,572	408,202	183,210	173,351	40,372	15,944	16,493
25-29 years	1,051,760	663,855	208,410	125,851	25,704	10,828	17,112
30-34 years	739,209	496,821	140,017	70,997	13,392	5,962	12,020
35-39 years	261,787	173,003	49,351	26,808	5,320	2,592	4,713
40 years and over	40,489	24,040	7,981	5,611	1,309	642	906
Black	684,336	261,062	139,716	185,356	43,801	31,008	23,393
Under 15 years	6,338	1,186	992	2,705	817	399	239
15-19 years	151,613	41,143	29,929	54,081	13,773	7,637	5,050
15 years	12,023	2,586	2,201	4,838	1,312	630	456
16 years	20,734	5,015	4,029	7,944	1,993	1,037	716
17 years	30,124	8,007	5,972	10,914	2,797	1,439	995
18 years	40,171	10,953	8,091	14,154	3,559	2,117	1,297
19 years	48,561	14,582	9,636	16,231	4,112	2,414	1,586
20-24 years	217,274	77,447	44,825	62,626	15,068	10,113	7,195
25-29 years	166,217	74,775	34,894	37,392	8,080	7,135	5,941
30-34 years	99,514	47,463	20,406	19,856	4,262	4,016	3,511
35-39 years	35,592	16,624	7,433	7,358	1,495	1,465	1,217
40 years and over	5,788	2,424	1,237	1,338	306	243	240
Race of child							
White	3,225,343	1,854,068	657,886	499,326	110,377	45,446	58,240
Under 15 years	4,855	1,043	845	1,805	665	314	183
15-19 years	343,920	115,805	79,585	104,878	25,692	9,987	7,973
15 years	14,345	3,731	3,052	5,060	1,486	609	407
16 years	34,426	9,844	7,644	11,770	3,026	1,219	923
17 years	62,846	19,584	14,510	20,176	5,109	1,920	1,547
18 years	97,503	32,693	22,839	29,768	7,200	2,810	2,193
19 years	134,800	49,953	31,540	38,104	8,871	3,429	2,903
20-24 years	817,789	399,371	178,884	168,574	39,352	15,554	16,054
25-29 years	1,034,573	654,451	204,753	122,966	25,064	10,590	16,749
30-34 years	727,416	489,737	137,606	69,390	13,098	5,814	11,771
35-39 years	257,113	170,111	48,392	26,221	5,217	2,550	4,622
40 years and over	39,677	23,550	7,821	5,492	1,289	637	888
Black	724,576	279,263	148,604	194,549	45,916	31,833	24,411
Under 15 years	6,426	1,207	1,009	2,735	830	402	243
15-19 years	158,974	43,503	31,635	56,417	14,357	7,816	5,246
15 years	12,347	2,664	2,268	4,960	1,347	644	464
16 years	21,451	5,207	4,203	8,193	2,060	1,053	735
17 years	31,398	8,379	6,283	11,336	2,888	1,468	1,044
18 years	42,268	11,641	8,586	14,790	3,738	2,160	1,353
19 years	51,510	15,612	10,295	17,138	4,324	2,491	1,650
20-24 years	230,494	82,985	47,707	65,988	15,856	10,415	7,543
25-29 years	178,140	79,726	37,087	39,301	8,515	7,328	6,183
30-34 years	106,156	51,123	21,814	20,945	4,472	4,130	3,672
35-39 years	38,145	18,058	8,008	7,748	1,565	1,494	1,272
40 years and over	6,241	2,661	1,344	1,415	321	248	252

¹Includes races other than white and black.

Table 31. Live births by month of pregnancy prenatal care began and number of prenatal visits, by race of mother and of child: United States, 1990

Number of prenatal visits and race	Month of pregnancy prenatal care began						Not stated
	All births	1st and 2d months	3d month	4th-6th months	7th-9th months	No prenatal care	
All races ¹	4,158,212	2,234,829	850,121	735,783	167,270	80,406	89,803
No visits	80,406	...	...	...	...	80,406	...
1-2 visits	71,871	8,535	6,147	18,789	35,530	...	2,870
3-4 visits	132,075	15,458	14,730	53,521	45,721	...	2,645
5-6 visits	246,106	45,996	42,143	114,065	40,181	...	3,721
7-8 visits	403,569	119,200	94,863	162,140	23,175	...	4,191
9-10 visits	790,254	361,460	218,098	193,509	11,466	...	5,721
11-12 visits	1,061,888	699,053	249,446	104,840	4,025	...	4,524
13-14 visits	622,358	466,018	114,400	38,285	1,430	...	2,225
15-16 visits	412,322	319,289	65,127	25,213	1,066	...	1,627
17-18 visits	88,883	69,276	14,381	4,655	168	...	403
19 visits or more	131,299	101,122	19,348	9,497	561	...	771
Not stated	117,181	29,422	11,438	11,269	3,947	...	61,105
Race of mother							
White	3,290,273	1,886,321	671,842	512,670	113,282	46,494	59,664
No visits	46,494	...	...	...	...	46,494	...
1-2 visits	43,145	5,358	3,601	10,121	22,528	...	1,537
3-4 visits	83,261	9,661	9,006	32,518	30,558	...	1,518
5-6 visits	166,363	32,083	28,943	75,325	27,719	...	2,293
7-8 visits	298,366	93,403	71,746	113,924	16,496	...	2,797
9-10 visits	621,781	298,546	172,159	138,896	8,202	...	3,978
11-12 visits	893,403	603,402	205,465	78,117	2,947	...	3,472
13-14 visits	534,949	408,070	94,958	29,143	1,068	...	1,710
15-16 visits	341,463	269,714	51,867	17,944	743	...	1,195
17-18 visits	74,999	59,416	11,625	3,526	122	...	310
19 visits or more	106,349	84,429	14,635	6,359	367	...	559
Not stated	79,700	22,239	7,837	6,797	2,532	...	40,295
Black	684,336	261,062	139,716	185,356	43,801	31,008	23,393
No visits	31,008	...	...	...	...	31,008	...
1-2 visits	24,688	2,817	2,266	7,713	10,743	...	1,149
3-4 visits	40,792	4,963	4,836	17,849	12,216	...	928
5-6 visits	65,276	11,303	10,666	32,052	10,070	...	1,185
7-8 visits	83,120	19,472	17,836	39,359	5,314	...	1,139
9-10 visits	130,218	46,002	35,366	44,844	2,616	...	1,390
11-12 visits	126,387	69,322	33,521	21,864	873	...	807
13-14 visits	65,972	42,475	15,252	7,555	289	...	401
15-16 visits	55,425	37,879	10,622	6,313	273	...	338
17-18 visits	10,724	7,437	2,225	945	40	...	77
19 visits or more	20,581	13,401	4,004	2,833	166	...	177
Not stated	30,145	5,991	3,122	4,029	1,201	...	15,802
Race of child							
White	3,225,343	1,854,068	657,886	499,326	110,377	45,446	58,240
No visits	45,446	...	...	...	...	45,446	...
1-2 visits	42,104	5,240	3,507	9,860	22,005	...	1,492
3-4 visits	81,066	9,408	8,759	31,655	29,759	...	1,485
5-6 visits	162,251	31,355	28,261	73,400	27,001	...	2,234
7-8 visits	291,897	91,653	70,345	111,135	16,038	...	2,726
9-10 visits	609,022	293,328	168,577	135,212	7,993	...	3,912
11-12 visits	877,506	593,807	201,400	76,047	2,855	...	3,397
13-14 visits	525,677	401,552	93,060	28,343	1,043	...	1,679
15-16 visits	335,009	264,922	50,703	17,486	731	...	1,167
17-18 visits	73,535	58,299	11,389	3,422	119	...	306
19 visits or more	104,058	82,757	14,242	6,155	359	...	545
Not stated	77,772	21,747	7,643	6,611	2,474	...	39,297
Black	724,576	279,263	148,604	194,549	45,916	31,833	24,411
No visits	31,833	...	...	...	...	31,833	...
1-2 visits	25,485	2,898	2,336	7,900	11,166	...	1,185
3-4 visits	42,364	5,129	5,013	18,491	12,772	...	959
5-6 visits	68,182	11,784	11,147	33,432	10,587	...	1,232
7-8 visits	87,423	20,558	18,737	41,289	5,650	...	1,189
9-10 visits	138,218	49,062	37,624	47,331	2,758	...	1,443
11-12 visits	135,704	74,618	36,034	23,253	941	...	858
13-14 visits	71,204	45,972	16,418	8,088	304	...	422
15-16 visits	59,137	40,508	11,372	6,619	282	...	356
17-18 visits	11,603	8,075	2,386	1,022	42	...	78
19 visits or more	21,971	14,363	4,276	2,975	172	...	185
Not stated	31,452	6,296	3,261	4,149	1,242	...	16,504

¹Includes races other than white and black.

Table 32. Live births by period of gestation and birth weight, by race of mother and of child: United States, 1990

Birth weight ¹ and race	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 races ²	4,158,212	29,237	49,891	208,586	148,876	1,701,145	928,773	579,207	465,681	46,816
Less than 500 grams	5,555	5,099	199	22	5	10	5	-	3	212
500-999 grams	20,533	14,797	4,179	628	33	174	65	39	55	563
1,000-1,499 grams	26,827	4,454	13,349	5,888	626	1,207	293	189	314	507
1,500-1,999 grams	55,087	1,551	11,376	25,704	4,364	8,156	1,233	706	1,148	849
2,000-2,499 grams	181,416	1,034	5,359	54,128	23,934	66,869	12,936	6,603	8,157	2,396
2,500-2,999 grams	665,737	1,556	5,824	53,796	52,814	339,389	101,257	51,518	51,971	7,612
3,000-3,499 grams	1,524,675	-	6,278	43,284	44,672	708,567	348,853	194,397	162,541	16,083
3,500-3,999 grams	1,220,843	-	3,115	19,707	17,567	448,164	335,257	220,061	164,825	12,147
4,000-4,499 grams	378,003	-	-	4,371	3,984	108,790	108,153	86,792	62,112	3,801
4,500-4,999 grams	66,178	-	-	701	631	16,589	18,250	16,608	12,673	726
5,000 grams or more	8,054	-	-	122	113	2,131	1,998	1,943	1,597	150
Not stated	5,304	746	212	235	133	1,099	473	351	285	1,770
Race of mother										
White	3,290,273	15,888	29,485	138,042	107,160	1,333,165	765,144	487,645	378,692	35,052
Less than 500 grams	3,010	2,766	99	15	4	5	3	-	3	115
500-999 grams	11,791	8,312	2,499	398	25	117	48	29	34	329
1,000-1,499 grams	16,513	2,450	8,348	3,782	406	738	182	121	192	294
1,500-1,999 grams	35,540	686	7,162	16,949	2,892	5,387	788	421	749	506
2,000-2,499 grams	120,325	481	2,756	36,588	16,153	44,476	8,608	4,442	5,945	1,476
2,500-2,999 grams	468,339	755	2,880	35,034	37,862	240,217	72,489	37,516	36,528	5,058
3,000-3,499 grams	1,191,605	-	3,551	27,388	32,688	552,973	278,325	157,415	127,192	12,073
3,500-3,999 grams	1,036,984	-	2,054	13,776	13,281	377,046	289,114	191,629	140,121	9,963
4,000-4,499 grams	335,641	-	-	3,314	3,147	95,087	96,807	78,742	55,290	3,254
4,500-4,999 grams	59,654	-	-	538	512	14,512	16,627	15,284	11,551	630
5,000 grams or more	7,039	-	-	88	94	1,766	1,771	1,757	1,449	114
Not stated	3,832	438	136	172	96	841	382	289	238	1,240
Black	684,336	12,576	18,592	61,002	35,037	285,133	124,672	70,210	69,349	7,765
Less than 500 grams	2,405	2,210	95	7	1	4	2	-	-	86
500-999 grams	8,143	6,082	1,565	206	8	48	13	10	18	193
1,000-1,499 grams	9,405	1,890	4,574	1,897	201	418	100	59	98	168
1,500-1,999 grams	17,531	817	3,853	7,823	1,292	2,447	398	256	358	287
2,000-2,499 grams	53,039	528	2,405	15,414	6,764	19,111	3,712	1,878	2,510	717
2,500-2,999 grams	161,159	761	2,687	16,256	12,602	79,390	23,128	11,509	13,053	1,773
3,000-3,499 grams	257,979	-	2,425	13,469	9,922	118,910	53,734	28,561	28,505	2,453
3,500-3,999 grams	137,613	-	922	4,876	3,483	52,970	34,111	21,086	18,917	1,248
4,000-4,499 grams	30,531	-	-	840	636	9,896	8,094	5,760	5,003	302
4,500-4,999 grams	4,561	-	-	131	84	1,477	1,145	909	763	52
5,000 grams or more	719	-	-	28	16	255	171	137	88	24
Not stated	1,251	288	66	55	28	207	64	45	36	462
Race of child										
White	3,225,343	15,477	28,802	134,952	104,921	1,307,460	750,742	478,413	370,578	33,998
Less than 500 grams	2,932	2,694	98	15	4	5	3	-	3	110
500-999 grams	11,503	8,102	2,442	390	25	113	46	29	34	322
1,000-1,499 grams	16,093	2,387	8,165	3,672	393	717	176	116	187	280
1,500-1,999 grams	34,663	665	6,990	16,540	2,830	5,256	767	407	719	489
2,000-2,499 grams	117,594	466	2,711	35,817	15,800	43,434	8,413	4,325	5,212	1,416
2,500-2,999 grams	457,896	738	2,798	34,237	37,064	235,001	70,871	36,697	35,615	4,875
3,000-3,499 grams	1,167,401	-	3,457	26,770	32,038	542,122	272,738	154,226	124,329	11,721
3,500-3,999 grams	1,018,048	-	2,010	13,497	12,996	370,482	283,977	188,170	137,241	9,675
4,000-4,499 grams	329,924	-	-	3,239	3,082	93,507	95,295	77,405	54,226	3,170
4,500-4,999 grams	58,622	-	-	524	501	14,256	16,342	15,030	11,353	616
5,000 grams or more	6,932	-	-	85	94	1,744	1,740	1,730	1,428	111
Not stated	3,735	425	131	166	94	823	374	278	231	1,213
Black	724,576	12,859	19,094	63,130	36,547	300,909	133,257	75,860	74,538	8,382
Less than 500 grams	2,460	2,261	96	7	1	4	2	-	-	89
500-999 grams	8,336	6,224	1,606	208	8	51	13	10	18	198
1,000-1,499 grams	9,715	1,936	4,707	1,972	212	435	105	63	103	182
1,500-1,999 grams	18,137	829	3,982	8,103	1,326	2,535	412	267	386	297
2,000-2,499 grams	54,817	538	2,443	15,931	6,982	19,787	3,844	1,946	2,585	761
2,500-2,999 grams	167,653	773	2,748	16,795	13,126	82,554	24,121	12,029	13,635	1,872
3,000-3,499 grams	272,633	-	2,487	13,913	10,403	125,391	56,994	30,482	30,314	2,649
3,500-3,999 grams	149,237	-	955	5,075	3,669	57,072	37,139	23,182	20,723	1,422
4,000-4,499 grams	34,241	-	-	898	683	10,953	9,045	6,605	5,712	345
4,500-4,999 grams	5,252	-	-	140	93	1,644	1,327	1,075	913	60
5,000 grams or more	789	-	-	30	16	267	189	152	109	26
Not stated	1,306	298	70	58	28	216	66	49	40	481

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

Table 33. Live births by 1- and 5-minute Apgar scores, by race of mother and of child: Total of 47 reporting States and the District of Columbia, 1990

1-minute score and race	Total	5-minute score											Not stated
		0	1	2	3	4	5	6	7	8	9	10	
All races ¹	3,181,512	2,436	6,754	3,147	3,217	4,745	8,650	19,631	49,121	231,226	2,365,996	461,192	25,397
0	2,498	967	354	224	190	170	129	103	69	82	118	49	43
1	20,368	722	5,028	1,032	1,333	1,538	1,887	2,330	2,147	2,161	1,974	65	151
2	20,799	151	775	1,281	747	1,303	2,050	3,156	3,409	3,997	3,672	160	98
3	27,107	52	229	226	538	785	1,980	3,892	5,381	6,942	6,755	237	90
4	38,556	27	76	101	97	401	1,213	4,175	7,711	11,495	12,757	441	62
5	59,450	7	40	55	69	122	671	3,372	10,968	19,561	23,630	885	70
6	102,274	13	23	40	55	96	169	1,564	11,328	38,057	48,944	1,897	88
7	278,829	44	33	46	71	108	173	391	5,779	79,996	185,392	6,686	110
8	1,259,930	161	62	70	57	116	235	404	1,650	66,522	1,143,293	47,106	254
9	1,317,642	273	87	48	32	75	110	194	587	2,146	938,501	375,248	341
10	28,513	18	6	3	-	2	3	4	4	24	278	28,123	48
Not stated	25,546	1	41	21	28	29	30	46	88	243	682	295	24,042
Race of mother													
White	2,483,345	1,433	3,875	1,815	2,002	3,058	5,625	13,459	35,535	178,499	1,841,586	379,060	17,398
0	1,469	504	240	129	135	107	83	68	42	45	68	24	24
1	12,900	433	2,828	625	831	1,009	1,160	1,520	1,448	1,519	1,390	52	85
2	14,043	84	446	698	455	833	1,346	2,099	2,345	2,866	2,675	132	64
3	19,009	25	125	137	336	500	1,305	2,620	3,718	4,980	5,016	197	50
4	27,926	13	39	59	57	266	820	2,902	5,447	8,433	9,487	366	37
5	43,957	4	24	31	37	78	451	2,362	7,938	14,442	17,832	714	44
6	78,498	8	11	25	33	50	109	1,142	8,465	28,867	38,136	1,587	65
7	222,728	27	23	23	46	72	105	273	4,431	63,123	148,830	5,703	72
8	1,005,239	125	42	37	37	74	153	314	1,256	52,421	909,619	40,981	180
9	1,016,875	194	65	36	18	47	77	132	393	1,650	707,870	306,165	228
10	23,290	15	5	3	-	1	3	3	2	20	236	22,969	33
Not stated	17,411	1	27	12	17	21	13	24	50	133	427	170	16,516
Black	586,890	918	2,712	1,250	1,125	1,543	2,743	5,617	12,177	45,440	440,011	66,522	6,832
0	940	425	104	90	46	59	45	31	24	31	47	24	14
1	6,840	267	2,078	386	459	479	656	730	632	563	515	13	62
2	6,081	65	314	544	270	432	623	957	957	1,026	835	26	32
3	7,271	25	94	85	194	264	622	1,168	1,504	1,737	1,505	35	38
4	9,529	13	32	41	39	125	361	1,170	2,049	2,725	2,886	65	23
5	13,681	2	16	22	30	41	198	909	2,732	4,529	5,029	149	24
6	20,701	5	12	14	21	43	55	393	2,570	8,075	9,236	256	21
7	47,595	14	8	18	23	32	63	105	1,175	14,502	30,806	814	35
8	210,099	33	18	30	19	36	72	78	335	11,738	192,793	4,881	66
9	252,753	67	21	11	13	23	31	53	162	419	196,106	55,743	104
10	4,462	2	1	-	-	1	-	1	2	2	34	4,405	14
Not stated	6,938	-	14	9	11	8	17	22	35	93	219	111	6,399
Race of child													
White	2,440,903	1,413	3,791	1,779	1,952	2,989	5,525	13,176	34,923	175,418	1,809,084	373,847	17,006
0	1,451	498	237	128	132	105	82	67	41	45	68	24	24
1	12,644	427	2,768	613	816	984	1,143	1,482	1,418	1,489	1,370	52	82
2	13,772	82	435	680	441	817	1,314	2,050	2,304	2,815	2,641	130	63
3	18,630	24	122	136	327	489	1,280	2,573	3,627	4,885	4,922	196	49
4	27,437	13	37	57	55	261	812	2,839	5,351	8,272	9,342	361	37
5	43,161	4	24	31	34	75	439	2,316	7,811	14,148	17,533	703	43
6	77,159	8	11	25	33	46	107	1,122	8,327	28,392	37,464	1,560	64
7	219,052	26	22	22	43	71	103	263	4,369	62,053	146,361	5,648	71
8	987,842	125	42	36	36	72	152	306	1,240	51,544	893,652	40,460	177
9	999,727	190	63	36	18	47	77	131	385	1,624	695,077	301,854	225
10	23,007	15	4	3	-	1	3	3	2	19	235	22,689	33
Not stated	17,021	1	26	12	17	21	13	24	48	132	419	170	16,138
Black	614,901	930	2,780	1,277	1,164	1,597	2,823	5,805	12,567	47,434	461,688	69,767	7,069
0	948	428	105	91	47	61	44	32	24	31	47	24	14
1	7,042	272	2,131	396	472	502	667	756	653	586	531	13	63
2	6,271	66	319	558	280	446	650	989	981	1,061	861	27	33
3	7,525	25	97	85	201	271	645	1,198	1,558	1,798	1,572	36	39
4	9,861	13	34	42	41	128	369	1,214	2,118	2,827	2,983	69	23
5	14,206	2	16	22	32	43	206	940	2,813	4,724	5,228	155	25
6	21,580	5	12	15	21	45	57	405	2,658	8,375	9,694	271	22
7	49,990	16	9	18	26	31	63	110	1,213	15,214	32,408	846	36
8	221,449	33	18	30	20	38	73	84	343	12,285	203,273	5,182	70
9	264,246	68	22	11	13	23	32	54	168	436	204,830	58,483	106
10	4,609	2	2	-	-	1	-	1	2	3	34	4,550	14
Not stated	7,174	-	15	9	11	8	17	22	36	94	227	111	6,624

¹Includes races other than white and black.

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

Table 34. Live births by 5-minute Apgar score and age of mother, by race of mother and of child: Total of 47 reporting States and the District of Columbia, 1990

Age of mother and race	Total	5-minute score											Not stated
		0	1	2	3	4	5	6	7	8	9	10	
All races ¹	3,181,512	2,436	6,754	3,147	3,217	4,745	8,650	19,631	49,121	231,226	2,365,996	461,192	25,397
Under 15 years	8,995	11	44	22	26	43	52	91	218	820	6,523	1,027	118
15-19 years	396,222	355	1,187	518	572	788	1,456	3,317	7,778	32,848	292,266	51,847	3,290
15 years	20,876	22	94	28	39	61	96	195	477	1,833	15,276	2,548	207
16 years	43,507	42	153	70	73	94	180	444	927	3,718	32,018	5,371	417
17 years	73,843	63	238	101	100	149	255	627	1,455	6,148	54,414	9,658	635
18 years	110,449	95	306	137	160	225	432	909	2,169	9,191	81,437	14,505	883
19 years	147,547	133	396	182	200	259	493	1,142	2,750	11,958	109,121	19,765	1,148
20-24 years	828,267	680	1,832	837	871	1,332	2,389	5,483	13,598	63,185	614,460	116,958	6,642
25-29 years	986,796	683	1,743	926	833	1,280	2,342	5,408	14,037	68,592	736,840	146,847	7,265
30-34 years	684,479	466	1,290	572	635	883	1,594	3,599	9,154	45,773	512,063	103,101	5,349
35-39 years	240,181	199	572	228	232	353	682	1,443	3,704	17,141	177,452	35,913	2,262
40-44 years	35,477	38	85	42	46	65	126	274	612	2,780	25,596	5,352	461
45-49 years	1,095	4	1	2	2	1	9	16	20	87	796	147	10
Race of mother													
White	2,483,345	1,433	3,875	1,815	2,002	3,058	5,625	13,459	35,535	178,499	1,841,586	379,060	17,398
Under 15 years	3,153	3	10	7	10	16	17	21	72	304	2,266	385	42
15-19 years	254,011	173	578	247	312	444	807	1,967	4,781	21,614	185,096	36,197	1,795
15 years	9,746	6	33	14	15	33	36	76	224	847	7,055	1,330	77
16 years	24,348	24	73	26	38	45	91	242	486	2,168	17,648	3,320	187
17 years	45,688	34	111	43	60	67	140	383	889	3,894	33,152	6,579	336
18 years	72,589	45	143	64	85	134	260	527	1,379	6,209	52,907	10,333	503
19 years	101,640	64	218	100	114	165	280	739	1,803	8,496	74,334	14,635	692
20-24 years	616,151	359	980	476	538	812	1,507	3,602	9,583	47,214	454,405	92,445	4,230
25-29 years	808,549	439	1,049	548	533	876	1,613	3,936	10,752	55,632	602,651	125,331	5,189
30-34 years	573,204	309	835	365	431	613	1,117	2,675	7,125	37,583	428,896	89,207	4,048
35-39 years	198,801	116	366	143	145	248	472	1,038	2,745	13,880	147,061	30,853	1,734
40-44 years	28,888	32	57	28	32	48	86	209	465	2,209	20,647	4,523	352
45-49 years	788	2	-	1	1	1	6	11	12	63	564	119	8
Black	586,890	918	2,712	1,250	1,125	1,543	2,743	5,617	12,177	45,440	440,011	66,522	6,832
Under 15 years	5,616	8	32	15	16	27	34	67	138	497	4,091	621	70
15-19 years	131,537	180	593	260	248	319	609	1,284	2,807	10,341	99,019	14,519	1,358
15 years	10,539	16	60	14	22	27	60	111	246	928	7,766	1,168	121
16 years	18,016	18	76	43	34	45	85	186	419	1,443	13,523	1,934	210
17 years	26,208	29	122	57	38	76	101	234	536	2,087	19,785	2,867	276
18 years	34,909	50	160	72	74	83	161	364	735	2,725	26,263	3,875	347
19 years	41,865	67	175	74	80	88	202	389	871	3,158	31,682	4,675	404
20-24 years	186,712	303	813	344	317	487	818	1,756	3,700	14,174	140,618	21,317	2,065
25-29 years	143,100	217	641	357	274	372	660	1,326	2,863	10,793	107,500	16,347	1,750
30-34 years	84,444	139	423	186	180	237	407	796	1,741	6,647	62,937	9,671	1,080
35-39 years	30,459	66	183	75	77	87	181	335	807	2,518	22,240	3,464	426
40-44 years	4,840	5	26	12	12	14	32	50	116	452	3,470	569	82
45-49 years	182	-	1	1	1	-	2	3	5	18	136	14	1
Race of child													
White	2,440,903	1,413	3,791	1,779	1,952	2,989	5,525	13,176	34,923	175,418	1,809,084	373,847	17,006
Under 15 years	3,077	3	9	7	9	16	17	21	72	302	2,207	374	40
15-19 years	247,190	171	560	240	304	426	789	1,917	4,658	21,081	179,951	35,366	1,727
15 years	9,476	6	33	14	14	31	35	76	217	831	6,843	1,300	76
16 years	23,734	23	70	26	38	44	89	236	473	2,122	17,192	3,239	182
17 years	44,515	34	107	40	59	65	138	380	873	3,799	32,257	6,443	320
18 years	70,640	44	141	63	80	129	256	511	1,345	6,054	51,429	10,105	483
19 years	98,825	64	209	97	113	157	271	714	1,750	8,275	72,230	14,279	666
20-24 years	602,992	353	957	465	519	798	1,474	3,514	9,381	46,268	444,301	90,853	4,109
25-29 years	797,431	433	1,027	540	525	861	1,589	3,870	10,621	54,809	594,125	123,928	5,103
30-34 years	565,495	305	821	359	422	603	1,100	2,625	7,024	37,085	422,906	88,275	3,970
35-39 years	195,790	114	360	139	140	239	466	1,013	2,699	13,651	144,794	30,469	1,706
40-44 years	28,156	32	57	28	32	46	84	205	456	2,160	20,248	4,465	343
45-49 years	772	2	-	1	1	-	6	11	12	62	552	117	8
Black	614,901	930	2,780	1,277	1,164	1,597	2,823	5,805	12,567	47,434	461,688	69,767	7,069
Under 15 years	5,681	8	33	15	17	27	34	67	138	499	4,141	630	72
15-19 years	136,576	180	609	265	252	333	627	1,321	2,888	10,719	102,869	15,110	1,403
15 years	10,735	16	60	14	23	29	61	111	251	940	7,921	1,187	122
16 years	18,472	18	79	43	34	45	86	191	430	1,478	13,860	1,995	213
17 years	27,078	29	126	58	39	78	103	237	548	2,149	20,464	2,961	286
18 years	36,361	51	161	73	76	86	166	374	758	2,841	27,367	4,043	365
19 years	43,930	66	183	77	80	95	211	408	901	3,311	33,257	4,924	417
20-24 years	196,076	307	831	354	331	501	845	1,815	3,835	14,832	147,880	22,405	2,140
25-29 years	149,948	222	659	365	282	381	679	1,361	2,950	11,271	112,834	17,139	1,805
30-34 years	89,073	141	433	188	188	244	419	836	1,800	6,968	66,520	10,215	1,121
35-39 years	32,209	67	188	77	81	94	184	350	828	2,652	23,586	3,661	441
40-44 years	5,146	5	26	12	12	16	33	52	123	474	3,715	592	86
45-49 years	192	-	1	1	1	1	2	3	5	19	143	16	1

¹Includes races other than white and black.

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

Technical notes

Source of data

Data shown in this report for 1990 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 (NCHS) through the Vital Statistics Cooperative Program (VSCP). In 1984 and earlier years, the VSCP included varying numbers of States that 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.

The 1989 revision of the U.S. Standard Certificate of Live Birth includes 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 48 States and the District of Columbia that reported this information in 1990.

Race

Beginning with the 1989 data year, NCHS is tabulating its birth data primarily by race of the mother. In 1988 and prior years, births were tabulated by the race of the child, which was determined from the race of the parents as entered on the birth certificate. When the parents were of the same race, as was the case for 96.5 percent of births in 1990, the race of the child was the same as the race of the parents. When the parents were of different races and one parent was white, the child was assigned to the other parent's race. When the parents were of different races and neither parent was white, the child was assigned to the father's race, with one exception—if either parent was Hawaiian, the child was assigned to Hawaiian. If race was missing for one parent, the child was assigned the race of the parent for whom race was reported.

The most important factor influencing the decision to tabulate births

by race of the mother was the recent revision of the birth certificate, effective with the 1989 data year. This revision includes many more health questions that are directly associated with the mother (for example, method of delivery, medical risk factors for this pregnancy, tobacco and alcohol use during pregnancy, and maternal weight gain). Additionally, many of the other items on the birth certificate for more than two decades also relate directly to the mother, for example, educational level and receipt of prenatal care. In all these instances, it is more appropriate to tabulate births by the mother's race.

A second factor has been the increasing incidence of interracial parentage. In 1990, 3.5 percent of births were to parents of different races compared with just 1.0 percent in 1968. The majority of these births were to white mothers and fathers of another race. There have been two major consequences of the increasing interracial parentage. One is the effect on birth rates by race. The number of white births under the pre-1989 procedures has been arbitrarily limited to infants whose parents were both white (or one parent white if only one parent's race was reported). At the same time, the number of births of other races has been arbitrarily increased to include all births to white mothers and fathers of other races. Thus, if race of mother had been used, birth rates per 1,000 white women in a given age group would have been higher while comparable rates for black women and women of other races would have been lower. The other consequence of increasing interracial parentage is its impact on the racial differential in various characteristics of births, particularly in cases where there is generally a large racial disparity, such as the incidence of low birth weight. In this instance, the racial differential is smaller when the data are tabulated by race of child than by race of mother. The same effect has been noted for characteristics such as nonmarital childbearing, preterm births, late or no prenatal care, and low educational attainment of mother.

The third factor influencing the decision to tabulate births by race of mother is the growing proportion of births with race of father not stated, 15 percent in 1990 compared with 7 percent in 1968. This reflects the increase in the proportion of births to unmarried women; in many such cases, no information is reported on the father. These births are already assigned the race of the mother because there is no alternative. Tabulating births by race of mother provides for a more uniform approach, rather than a necessarily arbitrary combination of parental races. This topic is discussed in greater detail in two recent papers (19,20).

This change in the tabulation of births by race presents challenges to those analyzing birth data by race, particularly trend data. The problem is likely to be acute for races other than white and black. To facilitate continuity and analysis of the data, key published tabulations for births in 1989 and 1990, including all trend tables, show data for both race of mother and race of child. This makes it possible to distinguish the effects of this change from real changes in the data. The text in this report focuses on data tabulated by race of mother. When the trend in rates is discussed, the rates are those tabulated by race of mother. Rates and other measures tabulated by race of mother for years prior to 1989 will be published in a future report.

Population denominators

Birth and fertility rates for 1990 shown in tables 1, 3-5, 12, 24, and 28 are based on populations enumerated in the 1990 census as of April 1. The population figures have been published by the U.S. Bureau of the Census (9). The 1990 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 described in detail in the census report (9).

Birth rates for 1981-89 have been revised, effective with this report. The

revised rates are based on revised populations for these years, which are consistent with 1990 census levels. These populations are published in a Bureau of the Census report (21).

A comparison of the revised rates with the rates originally published for 1981-89 indicates that the revised rates for women under 25 years of age are generally lower than the original rates, while for women aged 25 years and over, the revised rates are somewhat higher than the original rates.

Birth and fertility rates by month shown in table 8 are based on monthly population estimates and on the 1990 census count. Rates for unmarried women shown in tables 16 and 17 are based on distributions of the population by marital status as of March 1990 (2), published by the U.S. Bureau of the Census, which have been adjusted to July 1990 population levels (21) by the Division of Vital Statistics, NCHS.

Birth and fertility rates for the Hispanic population, shown in table 24, are based on tabulations of the Hispanic population from the 1990 census (9). Data for New Hampshire and Oklahoma are excluded from the population counts because these States did not report Hispanic origin on the birth certificate in 1990.

Computation of rates

In computing birth rates by live-birth order, births with birth order not stated were distributed in the same proportion as births of known live-birth order within each age of mother classification. This procedure is done separately by race. A similar process is followed for computing birth rates by age of father; births with age of father not stated are distributed first within each age-of-mother group.

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 with origin not stated (1.0 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 the 1980 data year, national estimates of births to unmarried women have been derived from two sources. In 1990 marital status was reported directly on the birth certificates of 44 States and the District of Columbia. In the remaining six States that lack such an item (California, Connecticut, Michigan, Nevada, New York, and Texas), 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, which 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 (22). Because of the continued substantial increases in nonmarital childbearing throughout the 1980's, the data have been intensively evaluated by the Division of Vital Statistics, NCHS. There has been continuing concern that the current method might overstate the number of births to unmarried women because it incorporates data based on a comparison of surnames. This is because women who have retained their maiden surname after marriage and who are frequently older, well-educated women would be classified as unmarried. The results of this evaluation have been generally similar in both the reporting States and the States using inferential data, but births to unmarried women increased at a slightly faster rate in the States providing inferential data than in the

States with a marital status item on the birth certificate. This was the case for births to unmarried white women, but births to unmarried black women increased slightly more in the reporting States than in the States providing inferential data.

Birth weight

Birth weight is reported in some areas in pounds and ounces rather than in grams. However, the metric system has been used in tabulating and presenting the statistics to facilitate comparison with data published by other groups. Equivalents of the gram weights in terms of pounds and ounces are as follows:

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

Period of gestation and birth weight

The 1989 revision of the U.S. Standard Certificate of Live Birth includes a new item, "clinical estimate of gestation," that is being compared with length of gestation computed from the date the last normal menstrual period (LMP) began when the latter appears to be inconsistent with birth weight. This is done for normal weight births of apparently short gestations and very low birth weight births reported to be full term. The clinical estimate was also used if the LMP date was not reported. The period of gestation for 3.9 percent of the births in 1990 was based on the clinical estimate of gestation. For all but 0.2 percent of the records, the clinical estimate was used because the LMP date was not reported. For the remaining 0.2 percent, the clinical estimate was used because it was compatible with the reported birth weight, whereas the LMP-based gestation was not. In cases where the reported birth weight was

inconsistent with both the LMP-computed gestation and the clinical estimate of gestation, the LMP-computed gestation was used and birth weight was reclassified as "not stated." This was necessary for only about 600 births, or 0.01 percent of all birth records in 1990. The levels of the adjustments made for the 1990 data are very comparable to those for the 1989 data.

Computations 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 prenatal care began, number of prenatal visits, 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 years of school completed and the median number of prenatal visits were based on ungrouped data. An asterisk is shown in place of any derived statistic based on fewer than 20 births in the numerator or denominator.

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 natality report (23).

Related reports

Throughout this report, reference has been made to the 1989 revision of the U.S. Standard Certificate of Live

Birth. This report describes birth rates and characteristics of births that have been based on data available on previous versions of the birth certificate. A second supplement to the *Monthly Vital Statistics Report* for 1990 birth data will be published and will present summary data on all the new topics included on the revised birth certificate. A similar report was published for 1989 (11).

The second supplement will include data on method of delivery, tobacco and alcohol use during pregnancy, maternal weight gain, obstetric procedures, medical risk factors, complications of labor and delivery, abnormal conditions of the newborn, and congenital anomalies of the child.

Many of the topics discussed in this report are covered in more analytic detail in other reports published by NCHS. Topics of reports published in the past 5 years include first births to older mothers (1), low birth weight (24), birth rates by educational attainment (5), births of Hispanic parentage (25), and twin births (12). Also available is a report evaluating inferred birth statistics for unmarried women in California (22).

This report presents summary tabulations from the final natality statistics for 1990. More detailed tabulations for 1990 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.

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