TECHNICAL APPENDIX FROM

VITAL STATISTICS OF THE UNITED STATES

2001

NATALITY

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

CENTERS FOR DISEASE CONTROL AND PREVENTION
NATIONAL CENTER FOR HEALTH STATISTICS
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VITAL STATISTICS OF THE UNITED STATES, 2001 VOLUME 1, NATALITY TECHNICAL APPENDIX

NOTE

This report has been updated to include information on newly available populations based on the 2000 census, and newly revised population-based birth and fertility rates. Please see sections on "Random variation and significance testing for natality data" and "Population bases."

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The technical appendix preparation was coordinated by Paul D. Sutton and Martha Little Munson in the Division of Vital Statistics of the Center for Disease Control's National Center for Health Statistics (NCHS) under the general direction of Stephanie J. Ventura, Chief of the Reproductive Statistics Branch. The vital statistics computer file on which it is based was prepared by staff from the Division of Vital Statistics.

The Division of Vital Statistics, Mary Anne Freedman, Director, and James A. Weed, Deputy Director, managed the Vital Statistics Cooperative Program, through which the vital registration offices of all States, the District of Columbia, New York City, Puerto Rico, Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands provided the data to the National Center for Health Statistics. This Division also processed computer edits, designed and programmed the tabulations, reviewed the data, prepared documentation for this publication, and was responsible for receipt and processing of the basic data file. The following management staff provided overall direction: Ronald F. Chamblee, James A. Weed and Nicholas F. Pace. Important contributors were: Judy M. Barnes, Brenda L. Brown, Faye Cavalchire, Linda P. Currin, Celia Dickens, Thomas D. Dunn, Connie M. Gentry, Brenda A. Green, Bonita Gross, Brady E. Hamilton, Christina K. Jarman, Millie B. Johnson, David W. Justice, Virginia J. Justice, Julia L. Kowaleski, Annie Liu, Joyce A. Martin, T.J. Mathews, Susan L. McBroom, Fay Menacker, Jaleh Mousavi, Gail Parr, Phyllis Powell-Hobgood, Melissa M. Park, Seth J. Preslar, Adrienne L. Rouse, Jordan Sacks, Manju Sharma, Steve Steimel, Pam Stephenson George C. Tolson, Mary M. Trotter, Mary Whitley, James G. Williams, Francine D. Winter, and Jiaquan Xu.

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Introduction

This report, published by the Centers for Disease Control and Prevention's (CDC) National Center for Health Statistics (NCHS), is an updated and abridged version of the 1999 Technical Appendix and focuses on information for the 2001 data file (1). This Appendix is also included in *Vital Statistics of the United States, 2001, Volume I, Natality* (in preparation). Reference will be made to the 1999 Technical Appendix for historical discussion of the variables, definitions, quality, and completeness of the birth data (2). This report supplements the Technical notes section of "Births: Final Data for 2001" (3) and is recommended for use with the public-use file for 2001 births, available on CD-ROM from NCHS, and the tabulated data of *Vital Statistics of the United States, 2001, Volume I, Natality* (in preparation).

Definition of Live Birth

Every product of conception that gives a sign of life after birth, regardless of the length of the pregnancy, is considered a live birth. This concept is included in the definition set forth by the World Health Organization in 1950 and revised in 1988 by a working group formed by the American Academy of Pediatrics and the American College of Obstetricians and Gynecologists (4, 5, 6):

> Live birth is the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy, which, after such separation, breathes or shows any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached; each product of such a birth is considered liveborn.

This definition distinguishes in precise terms a live birth from a fetal death (see section on fetal deaths in the Technical Appendix of volume II, *Vital Statistics of the United States*). In the interest of comparable natality statistics, both the Statistical Commission of the United Nations and CDC's NCHS have adopted this definition (7, 8).

History of Birth-Registration Area

Currently the birth-registration system of the United States covers the 50 States, the District of Columbia, the independent registration area of New York City and Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands (referred to as Northern Marianas). However, in the statistical tabulations, "United States" refers only to the aggregate of the 50 States (including New York City) and the District of Columbia. Information on the history and development of the birth-registration area is available elsewhere (2).

Sources of Data

Natality statistics

Since 1985 natality statistics for all States and the District of Columbia have been based on information from the total file of records. The information is received on electronic files of individual records processed by the States and provided to NCHS through the Vital Statistics Cooperative Program. NCHS receives these files from the registration offices of all States, the District of Columbia, and New York City. Information for Puerto Rico and the Virgin Islands is also received through the Vital Statistics Cooperative Program. Information for Guam, American Samoa, and the Northern Marianas is obtained from microfilm copies of original birth certificates and is based on the total file of records for all years. (Data from American Samoa first became available in 1997 and from the Northern Marianas in 1998.)

U.S. natality data are limited to births occurring within the United States, including those occurring to U.S. residents and nonresidents. Births to nonresidents of the United States have been excluded from all tabulations by place of residence beginning in 1970 (for further discussion see "Classification by occurrence and residence"). Births occurring to U.S. citizens outside the United States are not included in any tabulation in this report. Data for Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Northern Marianas are limited to births registered in these areas.

Standard certificate of live birth

The U.S. Standard Certificate of Live Birth, issued by the Public Health Service, has served for many years as the principal means of attaining uniformity in the content of the documents used to collect information on births in the United States. It has been modified in each State to the extent required by the particular State's needs or by special provisions of the State's vital statistics law. However, most State certificates conform closely in content to the standard certificate.

1989 revision—Effective January 1, 1989, a revised U.S. Standard Certificate of Live Birth (figure 4–A) replaced the 1978 revision. This revision provided a wide variety of new information on maternal and infant health characteristics, representing a significant departure from previous versions in both content and format. The most significant format change was the use of checkboxes to obtain detailed medical and health information about the mother and child. Details of the nature and content of the 1989 revision are available elsewhere (2).

Classification of Data

One of the principal values of vital statistics data is realized through the presentation of rates computed by relating the vital events of a class to the population of a similarly defined class. Vital statistics and population statistics, therefore, must be classified according to similarly defined systems and tabulated in comparable groups. Even when the variables common to both (such as geographic area, age, race, and sex) have been similarly classified and tabulated, significant discrepancies may result from the differences between methods used to obtain the data: population data are obtained by enumeration while vital statistics data are obtained via registration.

The general rules used to classify geographic and personal items for live births are set forth in "Vital Statistics Classification and Coding Instructions for Live Birth Records, 1999–2001," *NCHS Instruction Manual*, Part 3a (9). This material is incorporated in the basic file layout on the CD-ROM (1). The instruction materials are for States to use in coding the data items; they do not include any NCHS recodes. The file layout is a better source of information on the code structure since it provides the exact codes and recodes that are available.

The classification of certain important items is discussed in the following pages. Information on the completeness of reporting of birth certificate data is shown in table A, which presents a listing of items and the percent of records that were not stated for each State, Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Northern Marianas.

Classification by occurrence and residence

In tabulations by place of residence, births occurring within the United States to U.S. citizens and to resident aliens are allocated to the usual place of residence of the mother in the United States, as reported on the birth certificate. Beginning in 1970, births to nonresidents of the United States occurring in the United States are excluded from these tabulations. Births to U.S. residents occurring outside this country are excluded from place of residence tabulations.

The total count of births for the United States by place of residence and by place of occurrence will not be identical. Births to nonresidents of the United States are included in data by place of occurrence but excluded from data by place of residence, as previously indicated. See table B for the number of births by residence and occurrence for the 50 States and the District of Columbia for 2001.

Residence error—A nationwide test of birth-registration completeness in 1950 provided measures of residence error for natality statistics. According to the 1950 test (which has not been repeated), errors in residence reporting for the country as a whole tend to overstate the number of births to residents of urban areas and to understate the number of births to residents of other areas (10). Recent experience demonstrates that this is still a concern based on anecdotal evidence from the States. This tendency has assumed special importance because of a concomitant development—the increased utilization of hospitals in cities by residents of nearby places—with the result that a number of births are erroneously reported as having occurred to residents of urban areas. Another factor that contributes to this overstatement of urban births is the customary practice of using city addresses for persons living outside the city limits. Residence error should be taken into consideration in interpreting data for small areas and for cities. Both birth and infant mortality patterns can be affected.

Incomplete residence—Beginning in 1973, in cases where only the State of residence is reported with no city or county specified and the State named is different from the State of occurrence, the birth is allocated to the largest city of the State of residence. Before 1973, such births were allocated to the exact place of occurrence.

Geographic classification

The rules followed in the classification of geographic areas for live births are contained in the instruction manual mentioned previously. The geographic code structure itself for 2001 is given in another manual, "Vital Records Geographic Classification, 1995," *NCHS Instruction Manual*, Part 8, which is included with the documentation file on CD-ROM (1). The geographic code structure in 2001 is based on results of the 1990 Census of Population.

United States—In the statistical tabulations, "United States" refers only to the aggregate of the 50 States and the District of Columbia. Alaska has been included in the U.S. tabulations since 1959 and Hawaii since 1960.

Details of the classification of births for metropolitan statistical areas, metropolitan and nonmetropolitan counties, and population size groups for cities and urban places are presented elsewhere (2).

Places with a population of less than 100,000 are not separately identified on the public-use file because of confidentiality limitations.

Race or national origin

Beginning with the 1989 data year, birth data are tabulated primarily by race of mother. The criteria for reporting the race of the parents did not change in 1989, and it continues to reflect the response of the informant (usually the mother). The factors influencing the decision to tabulate births by race of the mother have been discussed in detail elsewhere (2, 11). Information on tabulation procedures for data by race prior to 1989 is presented elsewhere (2).

Beginning with the 1992 issue of *Vital Statistics of the United States, Volume I, Natality*, trend data for years beginning with 1980 have been retabulated by race of mother. The change in the tabulation of births by race presents some problems when analyzing birth data by race, particularly trend data. The problem is likely to be acute for races other than white and black.

The categories for race or national origin are "White," "Black," "American Indian" (including Aleuts and Eskimos), "Chinese," "Japanese," "Hawaiian," "Filipino," and "Other Asian or Pacific Islander" (including Asian Indian). Before 1992, there was also an "other" category, which is now combined with the "not stated" category. Before 1978, the category "Other Asian or Pacific Islander" was not identified separately but included with "other" races. The separation of this category from "other" allows identification of the "Asian or Pacific Islander" category by combining the new category "Other Asian or Pacific Islander" with Chinese, Japanese, Hawaiian, and Filipino.

Since 1992, States with the largest Asian or Pacific Islander (API) populations have provided NCHS with data for additional API subgroups. The API subgroups include Vietnamese, Asian Indian, Korean, Samoan, Guamanian, and other. In 2001, 11 States were included in this reporting area: California, Hawaii, Illinois, Minnesota, Missouri, New Jersey, New York, Texas, Virginia, Washington, and West Virginia. At least two-thirds of the U.S. population of each of these additional API groups lived in the 11-State reporting area (12). The data are available on the detailed natality tapes and CD-ROMs beginning with the 1992 data year. An analytic report based on the 1992 data year is also available upon request (13).

If the race or national origin of an Asian parent is ill-defined or not clearly identifiable with one of the categories used in the classification (for example, if "Oriental" is entered), an attempt is made to determine the specific race or national origin from the place of birth entry. If the birthplace is China, Japan, or the Philippines, the race of the parent is assigned to that category. When race cannot be determined from birthplace, it is assigned to the "Other Asian or Pacific Islander" category.

Hispanic origin and race are reported independently on the birth certificate. Data for Hispanic subgroups are shown, in most cases, for five groups: Mexican, Puerto Rican, Cuban, Central and South American, and other (and unknown) Hispanic. In tabulations of birth data by race only, data for persons of Hispanic origin are included in the data for each race group

according to the mother's reported race. The "White" category comprises births reported as white and births where race, as distinguished from Hispanic origin, is reported as Hispanic. In tabulations of birth data by race and Hispanic origin, data for persons of Hispanic origin are not further classified by race because the vast majority of births to Hispanic women are reported as white (98 percent in 2001). In these tabulations, data for non-Hispanic persons are classified according to the race of the mother because there are substantial differences in fertility and maternal and infant health between Hispanic and non-Hispanic white women. A recode variable is available that provides cross tabulations of race by Hispanic origin.

Race or national origin not stated—If the race of the mother is not defined or not identifiable with one of the categories used in the classification (0.4 percent of births in 2001) and the race of the father is known, the race of the father is assigned to the mother. Where information for both parents is missing, the race of the mother is allocated electronically according to the specific race of the mother on the preceding record with a known race of mother. Data for both parents were missing for only 0.3 percent of birth certificates for 2001.

Nearly all statistics by race or national origin for the United States as a whole in 1962 and 1963 are affected by a lack of information for New Jersey, which did not report the race of the parents in those years. Birth rates by race for those years are computed on a population base that excluded New Jersey. For the method of estimating the U.S. population by age, sex, and race excluding New Jersey in 1962 and 1963, see page 4–8 in the Technical Appendix of volume I, *Vital Statistics of the United States,* 1963. The percent of records for which Hispanic origin of the parents was not reported in 2001 is shown by State in table A.

Age of mother

Beginning in 1989, a "Date if Birth" item replaced the "Age (at time of this birth)" on the birth certificate. Not all States revised this item, and therefore the age of mother is derived from either the reported month and year of birth or coded as stated on the certificate. In 2001, the mother's age was reported directly by five States (Kentucky, Nevada, North Dakota, Virginia, and Wyoming) and American Samoa.

From 1964 to 1996, age of mother was considered not stated and therefore imputed for ages under 10 years or 50 years and over. Beginning in 1997, age of mother was considered not stated and imputed for ages under 10 years or 55 years and over. The numbers of births to women aged 50–54 years are too small for computing age-specific birth rates; these births have been included with births to women aged 45–49 years for computing birth rates.

Age-specific birth rates are based on populations of women by age, prepared by the U.S. Bureau of the Census. In census years the decennial census counts are used. In intercensal years, estimates of the population of women by age are published by the U.S. Bureau of the Census in *Current Population Reports*.

The U.S. and State-level birth and fertility rates for the 2001 final report of natality data are based on estimates as of July 1 projected from the 1990 census because detailed populations based on the 2000 census were not available when the report was prepared. When the necessary population estimates based on the 2000 census and intercensal estimates become available, population-based rates for the 1990s, 2000, and 2001 will be recalculated and presented in an upcoming report. Meanwhile, considerable caution should be used in interpreting the rates and trends for the Nation and States, particularly for race specific rates (see section on population bases).

Median age of mother—Median age is the value that divides an age distribution into two equal parts, one-half of the values being less and one-half being greater. Median ages of mothers for 1960 to the present have been computed from birth rates for 5-year age groups rather than from birth frequencies. This method eliminates the effects of changes in the age composition of the childbearing population over time. Changes in the median ages from year to year can thus be attributed solely to changes in the age-specific birth rates. Trend data on the median age is shown in table 1–5 of *Vital Statistics of the United States, 1999, Volume I, Natality* (at http://www.cdc.gov/nchs/datawh/statab/unpubd/natality/natab99.htm).

Not stated date of birth of mother—In 2001, age of mother was not reported on 0.01 percent of the records. Beginning in 1964 birth records with date of birth of mother and/or age of mother not stated have had age imputed according to the age of mother from the previous birth record of the same race and total-birth order (total of fetal deaths and live births). (See "Computer Edits for Natality Data, Effective 1993," *NCHS Instruction Manual*, Part 12, page 9) (14). Editing procedures for 1963 and earlier years are described elsewhere (2).

Age of father

Age of father is derived from the reported date of birth or coded as stated on the birth certificate. If the age is under 10 years, it is considered not stated and grouped with those cases for which age is not stated on the certificate. Information on age of father is often missing from birth certificates of children born to unmarried mothers, greatly inflating the number of "not stated" responses in all tabulations by age of father. In computing birth rates by age of father, births tabulated as age of father not stated are distributed in the same proportions as births with known age within each 5-year-age classification of the mother. This procedure is followed because, while father's age is missing in 13 percent of the birth certificates in 2001, 28 percent of these were on records where the mother is a teenager. This distribution procedure is done separately by race. The resulting distributions are summed to form a composite frequency distribution that is the basis for computing birth rates by age of father. This procedure avoids the distortion in rates that would result if the relationship between age of mother and age of father were disregarded. Births with age of father not stated are distributed only for rates, not for frequency tabulations (3).

Live-birth order and parity

Live-birth order and parity classifications refer to the total number of live births the mother has had including the 2001 birth. Fetal deaths are excluded.

Live-birth order indicates what number the present birth represents; for example, a baby born to a mother who has had two previous live births (even if one or both are not now living) has a live-birth order of three. Parity indicates how many live births a mother has had. Before delivery a mother having her first baby has a parity of zero, and a mother having her third baby has a parity of two. After delivery, the mother of a baby who is a first live birth has a parity of one, and the mother of a baby who is a third live birth has a parity of three.

Live-birth order and parity are determined from two items on the birth certificate, "Live births now living" and "Live births now dead." Editing procedures for live birth order are summarized elsewhere (2, 14).

Not stated birth order—All births tabulated in the "birth order not stated" category are excluded from the computation of percents. In computing birth rates by live-birth order, births

tabulated as birth order not stated are distributed in the same proportion as births of known live-birth order.

Educational attainment

National data on educational attainment are currently available only for the mother (2). Beginning in 1995, NCHS ceased to collect information on the educational attainment of the father.

The educational attainment of the mother is defined as "the number of years of school completed." Only those years completed in "regular" schools are counted, that is, a formal educational system of public schools or the equivalent in accredited private or parochial schools. Business or trade schools, such as beauty and barber schools, are not considered "regular" schools for the purposes of this item. No attempt has been made to convert years of school completed in foreign school systems, ungraded school systems, and so forth, to equivalent grades in the American school system. Such entries are included in the "not stated" category.

Women who have completed only a partial year in high school or college are tabulated as having completed the highest preceding grade. For those certificates on which a specific degree is stated, years of school completed is coded to the level at which the degree is most commonly attained; for example, women reporting B.A., A.B., or B.S. degrees are considered to have completed 16 years of school.

Education not stated—The "not stated" category includes all records in reporting areas for which there is no information on years of school completed as well as all records for which the information provided is not compatible with coding specifications. Births tabulated as "education not stated" are excluded from the computations of percents.

In 2001 educational attainment for Alabama was miscoded; some Hispanic mothers with no education were miscoded as having 12 years of education. Caution should be used when interpreting Alabama data on education for Hispanic women.

Marital status

National estimates of births to unmarried women are based on two methods of determining marital status: (1) direct question and (2) inference. Beginning June 15, 1998, Connecticut discontinued inferring the mother's marital status and added a direct question on mother's marital status to the State's birth certificate.

Two States (Michigan and New York) use inferential procedures to compile birth statistics by marital status in 2001. A birth is inferred as nonmarital if either a paternity acknowledgment was received or the father's name is missing. The presence of a paternity acknowledgment is the most reliable indicator that the birth is nonmarital in the States not reporting this information directly; this is now the key indicator in the nonreporting States.

The procedures for reporting marital status in California, Nevada, and New York City changed beginning January 1, 1997. Marital status of women giving birth in California and Nevada is determined by a direct question in the birth-registration process. Mother's marital status is still inferred in New York City, but the procedures for inferring this information changed and are now consistent with the rest of New York State. The methods used to determine marital status and the impact of the procedures on the data were discussed in detail in a previous report (15).

In 2001 the mother's marital status was not reported on 0.03 percent of the birth records

in States reporting this information from a direct question. Marital status was imputed as "married" for these records.

When births to unmarried women are reported as second or higher order births, it is not known whether the mother was married or unmarried when the previous deliveries occurred because her marital status at the time of these earlier births is not available from the birth record.

Place of delivery and attendant at birth

The 1989 revision of the U.S. Standard Certificate of Live Birth included separate categories for freestanding birthing centers, the mother's residence, and clinic or doctor's office as the place of birth. Beginning in 1989, births occurring in clinics and in birthing centers not attached to a hospital are classified as "Not in hospital." This change in classification may account in part for the lower proportion of "In hospital" births compared with previous years. (The change in classification of clinics should have minor impact because comparatively few births occur in these facilities, but the effect of any change in classification of freestanding birthing centers is unknown.)

Beginning in 1975 the attendant at birth and place of delivery items were coded independently, primarily to permit the identification of the person in attendance at hospital deliveries. Additional information on these items is presented elsewhere (2).

Babies born on the way to or upon arrival at the hospital are classified as having been born in the hospital. This may account for some of the hospital births not delivered by physicians or midwives. The "Not in hospital" category includes births for which no place of birth information is reported.

In 2000, Illinois started collecting data on certified nurse-midwives (CNM) and making corrections for "other midwife" and "other" categories. Data for earlier years were incomplete for Illinois births. As a result, the number of CNMs reported has significantly increased while "other midwife" has sharply decreased when compared to earlier years.

Procedures in some hospitals may require that a physician be listed as the attendant for every birth and that a physician sign each birth certificate, even if the birth is attended by a midwife and no physician is physically present. Therefore, the number of live births attended by midwives may be understated in some areas.

Birthweight

In some areas birthweight is reported 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. The categories for birthweight were changed in 1979 to be consistent with recommendations in the *Ninth Revision of the International Classification of Diseases* (ICD–9) and remain the same for the *Tenth Revision of the International Classification of Diseases* (ICD–10) (5). The categories in gram intervals and their equivalents in 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 l4 oz–9 lb l4 oz
4,500–4,999 grams = 9 lb 15 oz–11 lb 0 oz
5,000 grams or more = 11 lb l oz or more

ICD–9 and ICD–10 define low birthweight as less than 2,500 grams. This is a shift of 1 gram from the previous criterion of 2,500 grams or less, which was recommended by the American Academy of Pediatrics in 1935 and adopted in 1948 by the World Health Organization in the *Sixth Revision of the International Lists of Diseases and Causes of Death*.

After data classified by pounds and ounces are converted to grams, median weights are computed and rounded before publication. To establish the continuity of class intervals needed to convert pounds and ounces to grams, the end points of these intervals are assumed to be half an ounce less at the lower end and half an ounce more at the upper end. For example, 2 lb 4 oz–3 lb 4 oz is interpreted as 2 lb 3 ½ oz–3 lb 4 ½ oz.

Births for which birthweight is not reported are excluded from the computation of percents and medians.

Period of gestation

The period of gestation is defined as beginning with the first day of the last normal menstrual period (LMP) and ending with the day of the birth. LMP is used as the initial date because it can be more accurately determined than the date of conception, which usually occurs 2 weeks after the LMP.

Births occurring before 37 completed weeks of gestation are considered to be “preterm” or “premature” for purposes of classification. At 37–41 weeks gestation, births are considered to be “term,” and at 42 completed weeks and over, “postterm.” These distinctions are according to the ICD–9 and ICD–10 definitions (5).

The 1989 revision of the U.S. Standard Certificate of Live Birth included a new item, “clinical estimate of gestation.” This item is compared with length of gestation computed from the LMP date when the latter appears to be inconsistent with birthweight. This is done for normal weight births of apparently short gestations and for very low birthweight births reported to be full term. The use of the clinical estimate in the 2001 data file is described in the Technical Notes of “Births: Final Data for 2001” (3).

Before 1981, the period of gestation was computed only when there was a valid month, day, and year of LMP. However, length of gestation could not be determined from a substantial number of live-birth certificates each year because the day of LMP was missing. Beginning in 1981, weeks of gestation have been imputed for records with missing day of LMP when there is a valid month and year. The imputation procedure and its effect on the data are described elsewhere (2, 16).

Because of postconception bleeding or menstrual irregularities, the presumed date of LMP may be in error. In these instances, the computed gestational period may be longer or shorter than the true gestational period, but the extent of such errors is unknown.

Month of pregnancy prenatal care began

When the name of the month is entered for this item instead of "first," "second," "third," and so forth, the month of pregnancy in which prenatal care began is determined from the month named and the month last normal menses began. For these births, if "Date last normal menses began" is not stated, the month of pregnancy in which prenatal care began is tabulated as not stated.

Number of prenatal visits

Tabulations of the number of prenatal visits were presented for the first time in 1972. Beginning in 1989 these data were collected from the birth certificates of all States. Percent distributions and the median number of prenatal visits exclude births to mothers who had no prenatal care.

Apgar score

The Apgar score is a useful measure of the need for resuscitation and a predictor of the infant's chances of surviving the first year of life. It is a summary measure of the infant's condition based on heart rate, respiratory effort, muscle tone, reflex irritability, and color. Each of these factors is given a score of 0, 1, or 2; the sum of these five values is the Apgar score, which ranges from 0 to 10. A score of 10 is optimum, and a low score raises some concerns about the potential survival and subsequent health of the infant.

The 1- and 5-minute Apgar scores were added to the U.S. Standard Certificate of Live Birth in 1978 to evaluate the condition of the newborn infant at 1 and 5 minutes after birth. Since 1991, the reporting area for the 5-minute Apgar score has been comprised of 48 States and the District of Columbia, accounting for 78 percent of all births in the United States in 2001. (California and Texas did not have Apgar score information on their birth certificates.) Beginning in 1995, NCHS collected information only on the 5-minute Apgar score.

Tobacco and alcohol use during pregnancy

The checkbox format allows for classification of a mother as a smoker or drinker during pregnancy and for reporting the average number of cigarettes smoked per day and drinks consumed per week. Procedures for determining the consistency between smoking and drinking status and the quantity of cigarettes or drinks reported are described elsewhere (2).

In 2001, 49 States and the District of Columbia reported information on smoking and drinking status (not available for California). For 2001, information on number of cigarettes smoked per day was reported in a consistent manner by 46 States, the District of Columbia, and New York City (figure 4–A), accounting for 87 percent of U.S. births. Indiana and New York State (except for New York City) reported this information but in a format that was inconsistent with NCHS standards. Information was not available for California and South Dakota.

Weight gain during pregnancy

Weight gain is reported in pounds. A loss of weight is reported as zero gain. Computations of median weight gain were based on ungrouped data. This item was included on the certificates of 49 States and the District of Columbia; California did not report this information. This reporting area, excluding California, accounted for 87 percent of all births in the United States in 2001.

Medical risk factors for this pregnancy

An item on medical risk factors was included on the 1989 birth certificate, but 2 States did not report all of the 16 risk factors in 2001. Texas did not report genital herpes or uterine bleeding, and Kansas did not report Rh sensitization.

The format allows for the designation of more than one risk factor and includes a choice of "None." Accordingly, if the item is not completed, it is classified as not stated.

Definitions adapted and abbreviated from a set of definitions compiled by a committee of Federal and State health statistics officials for the Association for Vital Records and Health Statistics are available elsewhere (3).

Obstetric procedures

This item includes six specific obstetric procedures. Birth records with "Obstetric procedures" left blank are considered not stated. Data on obstetric procedures were reported by all States and the District of Columbia in 2001.

Definitions adapted and abbreviated from a set of definitions compiled by a committee of Federal and State health statistics officials for the National Association for Public Health Statistics and Information Systems (NAPHSIS), formerly the Association for Vital Records and Health Statistics, are available elsewhere (3).

Complications of labor and/or delivery

The checkbox format allows for the selection of 15 specific complications and for the designation of more than one complication where appropriate. A choice of "None" is also included. Accordingly, if the item is not completed, it is classified as not stated.

All States and the District of Columbia included this item on their birth certificates in 2001. However, Texas did not report anesthetic complications or fetal distress.

Definitions adapted and abbreviated from a set of definitions compiled by a committee of Federal and State health statistics officials are available elsewhere (3).

Abnormal conditions of the newborn

This item provides information on eight specific abnormal conditions. More than one abnormal condition may be reported for a given birth, or "None" may be selected. If the item is not completed, it is tabulated as not stated. This item was included on the birth certificates of all States and the District of Columbia in 2001. However, four areas did not include all conditions. Nebraska and Texas did not report birth injury, New York City did not report assisted ventilation less than 30 minutes or assisted ventilation of 30 minutes or more, and Wisconsin did not report fetal alcohol syndrome.

Definitions adapted and abbreviated from a set of definitions compiled by a committee of Federal and State health statistics are available elsewhere (3).

Congenital anomalies of child

The data provided in this item relate to 21 specific anomalies or anomaly groups. The format allows for the identification of more than one anomaly including a choice of "None" should no anomalies be evident. The "not stated" category includes birth records for which the item is not completed.

It is well documented that congenital anomalies, except for the most visible and most severe, are incompletely reported on birth certificates (17). The completeness of reporting specific anomalies depends on how easily they are recognized in the short time between birth and birth registration.

Forty-nine States and the District of Columbia included this item on their birth certificates. (New Mexico did not). This reporting area included 99 percent of all births in the United States in 2001. The format allows for the identification of more than one anomaly including a choice of "None" should no anomalies be evident. The "not stated" category includes birth records for which the item is not completed.

In 2001 rates for other central nervous system anomalies in Arizona and Oklahoma may be overstated because of misreporting.

Definitions adapted and abbreviated from a set of definitions compiled by a committee of Federal and State health statistics officials are available elsewhere (3).

Method of delivery

The birth certificate contains a checkbox item for method of delivery. The choices include vaginal delivery, with the additional options of forceps, vacuum, and vaginal birth after previous cesarean section (VBAC), as well as a choice of primary or repeat cesarean. When only forceps, vacuum, or VBAC is checked, a vaginal birth is assumed. In 2001 this information was collected from the birth certificates of all States and the District of Columbia.

Several rates are computed for method of delivery. The overall cesarean section rate or total cesarean rate is computed as the proportion of all births that were delivered by cesarean section. The primary cesarean rate is a measure that relates the number of women having a primary cesarean birth to all women giving birth who have never had a cesarean delivery. The denominator for this rate is the sum of women with a vaginal birth excluding VBACs and women with a primary cesarean birth. The rate for VBAC delivery is computed by relating all VBAC deliveries to the sum of VBAC and repeat cesarean deliveries, that is, to women with a previous cesarean section. VBAC rates are computed for first births because the rates are computed on previous pregnancies, not just live births.

Hispanic parentage

The 1989 revision of the U.S. Standard Certificate of Live Births includes items to identify the Hispanic origin of the parents. All 50 States and the District of Columbia reported Hispanic origin of the parents for 2001.

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 of mother not stated (0.6 percent in 2001) were actually to Hispanic mothers. The population with origin not stated was imputed. The effect on the rates is believed to be small.

Quality of Data

Although vital statistics data are useful for a variety of administrative and scientific

purposes, they cannot be correctly interpreted unless various qualifying factors and methods of classification are taken into account. The factors to be considered depend on the specific purposes for which the data are to be used. It is not feasible to discuss all the pertinent factors in the use of vital statistics tabulations, but some of the more important ones should be mentioned.

Most of the factors limiting the use of data arise from imperfections in the original records or from the impracticability of tabulating these data in very detailed categories. These limitations should not be ignored, but their existence does not lessen the value of the data for most general purposes.

Completeness of registration

An estimated 99 percent of all births occurring in the United States in 2001 were registered; for white births, registration was 99.5 percent complete and for all other births, 98.6 percent complete. These estimates are based on the results of the 1964–68 test of birth-registration completeness according to place of delivery (in or out of hospital) and race. (This test has not been conducted more recently.) The primary purpose of the test was to obtain current measures of registration completeness for births in and out of hospital by race on a national basis. Data for States were not available as they had been from the previous birth-registration tests in 1940 and 1950. A detailed discussion of the method and results of the 1964–68 birth-registration test is available (18). Information on procedures for adjusting births for underregistration (for cohort fertility tables) is presented elsewhere in this report (2).

Completeness of reporting

Interpretation of these data must include evaluation of item completeness. The percent in the "not stated" category is one measure of the quality of the data. Completeness of reporting varies among items and States. See table A for the percent of birth records on which specified items were not stated. Data users should note that levels of incomplete or inaccurate reporting for some of the items are quite high in some States. Data for 2001 for the District of Columbia and Washington are of particular concern.

Quality control procedures

As electronic files are received at NCHS, they are automatically checked for completeness, individual item code validity, and unacceptable inconsistencies between data items. The registration area is notified of any problems. In addition, NCHS staff review the files on an ongoing basis to detect problems in overall quality such as inadequate reporting for certain items, failure to follow NCHS coding rules, and systems and software errors. Traditionally, quality assurance procedures were limited to review and analysis of differences between NCHS and registration area code assignments for a small sample of records. In recent years, as electronic birth registration became prevalent, this procedure was augmented by analyses of year-to-year and area-to-area variations in the data. These analyses are based on preliminary tabulations of the data that are cumulated by State on a year-to-date basis each month. NCHS investigates all differences that are judged to have consequences for quality and completeness. In the review process, statistical tests are used to call initial attention to differences for possible follow-up. As necessary, registration areas are informed of differences encountered in the tables and asked to verify the counts or to determine the nature of the differences. Missing records (except those permanently voided) and other problems detected by NCHS are resolved, and

corrections are transmitted to NCHS in the same manner as for those corrections identified by the registration area.

Random variation and significance testing for natality data

A detailed discussion of random variation and significance testing for natality data is presented in the Technical notes of "Births: Final Data for 2001." (3) This section presents information specifically for Hispanic subgroups.

Computing confidence intervals for Hispanic subgroups

Birth and fertility rates for Mexicans, Puerto Ricans, Cubans, and "Other" Hispanics for 2001 are not currently available because the necessary populations estimated from the 2000 Census are not available (3). Rates for Hispanic subgroups will be reported in a special report and in tables 1–4 and 1–12 of *Vital Statistics of the United States, part 1, Natality* when the necessary populations become available.

Population estimates for Hispanic subgroups are derived from the U.S. Census Bureau's *Current Population Survey* and adjusted to resident population control totals as shown in table 4–2. As a result, the rates are subject to the variability of the denominator as well as the numerator. For these Hispanic subgroups only (not for all origin, total Hispanic, total non-Hispanic, non-Hispanic white, or non-Hispanic black populations), the following formulas are used:

Approximate 95 percent Confidence Interval: 100 or more births

When the number of events in the numerator is greater than 100, the confidence interval for the birth rate can be estimated from the following formulas:

For crude and age-specific birth rates,

$$\text{Lower limit} = R - 1.96 * R * \sqrt{\left(\frac{1}{B}\right) + f\left(a + \frac{b}{P}\right)}$$

$$\text{Upper limit} = R + 1.96 * R * \sqrt{\left(\frac{1}{B}\right) + f\left(a + \frac{b}{P}\right)}$$

where:

- R = rate (births per 1,000 population)
- B = total number of births upon which rate is based
- f = factor that depends on whether the population estimate is based on demographic analysis or CPS and the number of years used, equals 0.670 for single year
- a and b are single year averages of the 2000 and 2001 CPS standard error parameters (19, 20)
  - a = -0.000162
  - b = 5,648
- P = total estimated population upon which rate is based

Example

Suppose that the fertility rate of Cuban women 15–44 years of age was 51.2 per 1,000 based on 13,088 births in the numerator and an estimated resident population of 255,399 in the denominator. The 95 percent confidence interval would be:

$$\begin{aligned}\text{Lower limit} &= 51.2 - 1.96 * 51.2 * \sqrt{\left(\frac{1}{13{,}088}\right) + 0.670 * \left[-0.000162 + \left(\frac{5{,}648}{255{,}399}\right)\right]} \\ &= 51.2 - 1.96 * 51.2 * \sqrt{0.000076405 + (0.670 * 0.021952)} \\ &= 51.2 - 1.96 * 51.2 * \sqrt{0.014784} \\ &= 51.2 - 1.96 * 51.2 * 0.121589 \\ &= 39.00\end{aligned}$$

$$\begin{aligned}\text{Upper limit} &= 51.2 + 1.96 * 51.2 * \sqrt{\left(\frac{1}{13{,}088}\right) + 0.670 * \left[-0.000162 + \left(\frac{5{,}648}{255{,}399}\right)\right]} \\ &= 51.2 + 1.96 * 51.2 * \sqrt{0.000076405 + (0.670 * 0.021952)} \\ &= 51.2 + 1.96 * 51.2 * \sqrt{0.014784} \\ &= 51.2 + 1.96 * 51.2 * 0.121589 \\ &= 63.40\end{aligned}$$

This means that the chances are 95 out of 100 that the actual fertility rate of Cuban women 15–44 years of age is between 39.00 and 63.40.

Approximate 95 percent Confidence Interval: 1–99 births

When the number of events in the numerator is less than 20, an asterisk is shown in place of the rate. When the number of events in the numerator is greater than 20 but less than 100, the confidence interval for the birth rate can be estimated using the formulas that follow and the values in table C.

For crude and age-specific birth rates,

$$\text{Lower limit} = R * L(1 - a = .96, B) * \left(1 - 2.576\sqrt{f\left(a + \frac{b}{P}\right)}\right)$$

$$\text{Upper limit} = R * U(1 - a = .96, B) * \left(1 + 2.576\sqrt{f\left(a + \frac{b}{P}\right)}\right)$$

where:

R = rate (births per 1,000 population)
B = total number of births upon which rate is based
L = the value in table C that corresponds to the number B, using the 96 percent CI

column
U = the value in table C that corresponds to the number B, using the 96 percent CI column
f = factor that depends on whether the population estimate is based on demographic analysis or CPS and the number of years used, equals 0.670 for single year
a and b are CPS standard error parameters (see previous section on 95 percent confidence interval for 100 or more births for description and specific values)
P = total estimated population upon which rate is based

Example

Suppose that the birth rate of Puerto Rican women 45–49 years of age was 0.4 per 1,000, based on 35 births in the numerator and an estimated resident population of 87,892 in the denominator. Using table C, the 95 percent confidence interval would be:

$$\begin{aligned}\text{Lower limit} &= 0.4 * 0.68419 * \left(1 - 2.576\sqrt{0.670\left(-0.000162 + \left(\frac{5{,}648}{87{,}892}\right)\right)}\right)\\ &= 0.4 * 0.68419 * \left(1 - 2.576\sqrt{0.042946}\right)\\ &= 0.4 * 0.68419 * \left(1 - 2.576 * 0.207234\right)\\ &= 0.4 * 0.68419 * 0.466165\\ &= 0.1\end{aligned}$$

$$\begin{aligned}\text{Upper limit} &= 0.4 * 1.41047 * \left(1 + 2.576\sqrt{0.670\left(-0.000162 + \left(\frac{5{,}648}{87{,}892}\right)\right)}\right)\\ &= 0.4 * 1.41047 * \left(1 + 2.576\sqrt{0.042946}\right)\\ &= 0.4 * 1.41047 * \left(1 + 2.576 * 0.207234\right)\\ &= 0.4 * 1.41047 * 1.533835\\ &= 0.9\end{aligned}$$

This means that the chances are 95 out of 100 that the actual birth rate of Puerto Rican women 45–49 years of age is between 0.1 and 0.9.

NOTE: In the formulas above, the confidence limits are estimated from the nonsampling error in the number of births, the numerator, and the sampling error in the population estimate, the denominator. A 96 percent standard error is computed for the numerator, and a 99 percent standard error is computed for the denominator in order to compute a 95 percent confidence interval for the rate.

Significance testing for Hispanic subgroups

When both rates are based on 100 or more events, the difference between the two rates is considered statistically significant if it exceeds the statistic in the formula below. This statistic equals 1.96 times the standard error for the difference between two rates.

$$= 1.96 * \sqrt{R_1^2 * \left[\left(\frac{1}{B_1}\right) + f\left(a + \frac{b}{P_1}\right)\right] + R_2^2 * \left[\left(\frac{1}{B_2}\right) + f\left(a + \frac{b}{P_2}\right)\right]}$$

If the difference is greater than this statistic, then the difference would occur by chance less than 5 times out of 100. If the difference is less than this statistic, the difference might occur by chance more than 5 times out of 100. We would therefore conclude that the difference is not statistically significant at the 95 percent confidence level.

Example

Suppose the birth rate for Puerto Rican mothers 15–19 years of age (R_1) is 80.6, based on 11,978 births and an estimated population of 148,673, and the birth rate for Cuban mothers 15–19 years of age (R_2) is 27.1, based on 997 births and an estimated population of 36,782. Using the above formula, the z score is computed as follows:

$$= 1.96 * \sqrt{80.6^2 * \left[\left(\frac{1}{11{,}978}\right) + 0.670\left(-0.000162 + \frac{5{,}648}{148{,}673}\right)\right] + 27.1^2 * \left[\left(\frac{1}{997}\right) + 0.670\left(-0.000162 + \frac{5{,}648}{36{,}782}\right)\right]}$$

$$= 1.96 * \sqrt{6{,}496.36 * (0.000083486 + 0.670 * 0.037827) + 734.41 * (0.001003009 + 0.670 * 0.153391)}$$

$$= 1.96 * \sqrt{(6496.36 * 0.025428) + (734.41 * 0.103775)}$$

$$= 1.96 * \sqrt{165.19 + 76.21}$$

$$= 1.96 * 15.54$$

$$= 30.46$$

Since the difference between the two rates of 53.5 is greater than the value above, the two rates are statistically significantly different at the 0.05 level of significance.

Computation of rates and other measures

Population bases

The rates shown in this report were computed based on population statistics prepared by the U.S. Census Bureau. Rates for 1940, 1950, 1960, 1970, 1980, and 1990 are based on the population enumerated as of April 1 in the censuses of those years. Rates for all other years are based on the estimated midyear (July 1) population for the respective years. These populations have been modified to be consistent with Office of Management and Budget racial categories and historical categories for birth data, and in the case of age, to reflect age as of the census reference date (21).

Populations in tables 4–1 through 4–4 differ from those used to calculate birth and fertility rates published in “Births: Final Data for 2001” and “ Births: Final Data for 2000” (3, 22). Populations for April 1, 2000 and July 1, 2001 provided in this report were produced under a collaborative arrangement with the U.S. Census Bureau (23-25) and(23–25). They are based on the 2000 census counts by age, race, and sex, which were modified to be consistent with Office

of Management and Budget racial categories of 1977 and historical categories for birth data; in the case of age, they were modified to reflect age as of the census reference date. The modification procedures are described in detail elsewhere (21, 26 and 27).

The special report "Revised Birth and Fertility Rates for the United States, 2000 and 2001," (28) updates the rates published in "Births: Final Data for 2001" and " Births: Final Data for 2000" (3, 22). The revised birth and fertility rates in the new report include rates by race and Hispanic origin, by age of mother, and by age of father for 2000 and 2001. Rates for unmarried women are also presented. A subsequent special report (now in preparation) will show revised birth and fertility rates for the intercensal years, 1991–99, along with the rates for 2000 and 2001.

Birth rates for the United States, individual States, and metropolitan areas are based on the total resident populations of the respective areas. Revised rates for 2001 for individual States and metropolitan areas have not been computed since the necessary populations are not yet available (table 4–4). Revised State-specific population for 2000 are now available, and revised rates will be presented in the special report now in preparation. Except as noted, these populations exclude the Armed Forces abroad but include the Armed Forces stationed in each area. The resident population of the birth- and death-registration States for 1900-32 and for the United States for 1900-2001 is shown in table 4-1. In addition, the population including Armed Forces abroad is shown for the United States. Table D shows the sources for these populations. A detailed discussion of historical population bases is presented elsewhere (2).

Net census undercounts and overcounts

Studies conducted by the U.S. Census Bureau indicate that some age, race, and sex groups are more completely enumerated than others. These census miscounts can have consequences for vital statistics measures. For example, an adjustment to increase the population denominator would result in a smaller rate compared to the unadjusted rate. A more detailed discussion of census undercounts and overcounts can be found in the 1999 Technical appendix (2). Adjusted rates for 1990 can be computed by multiplying the reported rates by ratios of the 1990 census-level population adjusted for the estimated net census miscounts; these ratios are shown in table E.

Cohort fertility tables

The various fertility measures shown for cohorts of women are computed from births adjusted for under-registration and population estimates corrected for under-enumeration and misstatement of age. Data published after 1974 use revised population estimates prepared by the U.S. Census Bureau and have been expanded to include data for the two major racial groups. Heuser has prepared a detailed description of the methods used in deriving these measures as well as more detailed data for earlier years (29). These tables for current years are available at http://www.cdc.gov/nchs/datawh/statab/unpubd/natality/natab99.htm.

Parity distribution—The percent distribution of women by parity (number of children ever born alive to mother) is derived from cumulative birth rates by order of birth. The percent of zero-parity women is obtained by subtracting the cumulative first birth rate from 1,000 and dividing by 10. The proportions of women at parities one through six are derived from the following formula:

Percent at N parity = ((cum. rate, order N)-(cum. rate, order N + 1))/10

The percent of women at seventh and higher parities is found by dividing the cumulative rate for seventh-order births by 10.

Birth probabilities—Birth probabilities indicate the likelihood that a woman of a certain parity and age at the beginning of the year will have a child during that year. Birth probabilities differ from central birth rates in that the denominator for birth probabilities is specific for parity as well as for age.

Total fertility rate

The total fertility rate is the sum of the birth rates by age of mother (in 5-year age groups) multiplied by 5. It is an age-adjusted rate because it is based on the assumption that each age group has the same number of women. For example, a total fertility rate of 2,034 means that if a hypothetical group of 1,000 women had the same birth rates in each age group that were observed in the actual childbearing population for that year, they would have a total of 2,034 children by the time they reached the end of the reproductive period (taken here to be age 50 years), assuming that all of the women survived to that age.

Seasonal adjustment of rates

Seasonally adjusted birth and fertility rates are computed from the X-11 variant of Census Method II (30). This method, used since 1964, differs slightly from the U.S. Bureau of Labor Statistics (BLS) Seasonal Factor Method, which was used for *Vital Statistics of the United States, 1964*. A comparison of the Census Method II with the BLS Seasonal Factor Method shows the differences in the seasonal patterns of births to be negligible. The fundamental technique is the same in that it is an adaptation of the ratio-to-moving-average method. (Before 1964, the method of seasonal adjustment was based on the X-9 variant and other variants of Census Method II.)

Computations of percents, percent distributions, and medians

Births for which a particular characteristic is unknown were subtracted from the figures for total births that were used as denominators before computation of percents, percent distributions, and medians. The percent of records with missing information for each item is shown by State in table A.

The median number of prenatal visits excludes 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. The median age of mother is computed from birth rates in 5-year age groups, which eliminates the effects of changes in the age composition of the childbearing population over time.

An asterisk is shown in place of any derived statistic based on fewer than 20 births in the numerator or denominator.

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FIGURE 4-A

TYPE/PRINT IN PERMANENT BLACK INK FOR INSTRUCTIONS SEE HANDBOOK

LOCAL FILE NUMBER

U.S. STANDARD

CERTIFICATE OF LIVE BIRTH

STATE NUMBER

CHILD

1 CHILD'S NAME (First, Middle, Last) | 2 DATE OF BIRTH (Month Day Year) | 3 TIME OF BIRTH

4 SEX | 5 CITY TOWN OR LOCATION OF BIRTH | 6 COUNTY OF BIRTH

7 PLACE OF BIRTH ☐ Hospital ☐ Freestanding Birthing Center ☐ Clinic/Doctor's Office ☐ Residence ☐ Other (Specify) | 8 FACILITY NAME (If not institution give street and number)

CERTIFIER/ ATTENDANT

9 I certify that this child was born alive at the place and time and on the date stated. Signature ▶ | 10 DATE SIGNED (Month Day Year)

11 ATTENDANT'S NAME AND TITLE (If other than certifier) (Type/Print) Name ☐ M D ☐ D O ☐ C N M ☐ Other Midwife ☐ Other (Specify)

DEATH UNDER ONE YEAR OF AGE Enter State File Number of death certificate for this child

12 CERTIFIER'S NAME AND TITLE (Type/Print) Name ☐ M D ☐ D O ☐ Hospital Admin ☐ C N M ☐ Other Midwife ☐ Other (Specify)

13 ATTENDANT'S MAILING ADDRESS (Street and Number or Rural Route Number City or Town State Zip Code)

14 REGISTRAR'S SIGNATURE ▶ | 15 DATE FILED BY REGISTRAR (Month Day Year)

MOTHER

16a MOTHER'S NAME (First, Middle, Last) | 16b MAIDEN SURNAME | 17 DATE OF BIRTH (Month Day, Year)

18 BIRTHPLACE (State or Foreign Country) | 19a RESIDENCE – STATE | 19b COUNTY | 19c CITY TOWN OR LOCATION

19d STREET AND NUMBER | 19e INSIDE CITY LIMITS? (Yes or no) | 20 MOTHER'S MAILING ADDRESS (If same as residence, enter Zip Code only)

FATHER

21. FATHER'S NAME (First, Middle, Last) | 22 DATE OF BIRTH (Month Day, Year) | 23 BIRTHPLACE (State or Foreign Country)

INFORMANT

24 I certify that the personal information provided on this certificate is correct to the best of my knowledge and belief. Signature of Parent or Other Informant ▶

INFORMATION FOR MEDICAL AND HEALTH USE ONLY

	25 OF HISPANIC ORIGIN? (Specify No or Yes – If yes specify Cuban, Mexican, Puerto Rican, etc.)	26 RACE – American Indian, Black, White, etc. (Specify below)	27 EDUCATION (Specify only highest grade completed) Elementary, Secondary (0-12) | College (1-4 or 5+)
MOTHER	25a ☐ No ☐ Yes Specify:	26a	27a
FATHER	25b ☐ No ☐ Yes Specify:	26b	27b

28. PREGNANCY HISTORY (Complete each section)

LIVE BIRTHS (Do not include this child)		OTHER TERMINATIONS (Spontaneous and induced at any time after conception)
28a. Now Living: Number ____ ☐ None	28b. Now Dead: Number ____ ☐ None	28d. Number ____ ☐ None
28c. DATE OF LAST LIVE BIRTH (Month, Year)		28e. DATE OF LAST OTHER TERMINATION (Month, Year)

MULTIPLE BIRTHS Enter State File Number for Male(s) LIVE BIRTH(S)

FETAL DEATH(S)

29 MOTHER MARRIED? (At birth, conception, or any time between) (Yes or no)

30 DATE LAST NORMAL MENSES BEGAN (Month, Day, Year)

31. MONTH OF PREGNANCY PRENATAL CARE BEGAN – First, Second, Third, etc. (Specify)

32 PRENATAL VISITS – Total Number (If none, so state)

33. BIRTH WEIGHT (Specify unit)

34 CLINICAL ESTIMATE OF GESTATION (Weeks)

35a. PLURALITY – Single, Twin, Triplet, etc. (Specify)

35b IF 'NOT SINGLE BIRTH' – Born First, Second, Third, etc. (Specify)

36. APGAR SCORE

36a. 1 Minute	36b. 5 Minutes

37a. MOTHER TRANSFERRED PRIOR TO DELIVERY? ☐ No ☐ Yes If Yes, enter name of facility transferred from:

37b. INFANT TRANSFERRED? ☐ No ☐ Yes If Yes, enter name of facility transferred to

38a. MEDICAL RISK FACTORS FOR THIS PREGNANCY (Check all that apply)

Anemia (Hct < 30/Hgb < 10)	01 ☐
Cardiac disease	02 ☐
Acute or chronic lung disease	03 ☐
Diabetes	04 ☐
Genital herpes	05 ☐
Hydramnios/Oligohydramnios	06 ☐
Hemoglobinopathy	07 ☐
Hypertension, chronic	08 ☐
Hypertension, pregnancy-associated	09 ☐
Eclampsia	10 ☐
Incompetent cervix	11 ☐
Previous infant 4000+ grams	12 ☐
Previous preterm or small-for gestational age infant	13 ☐
Renal disease	14 ☐
Rh sensitization	15 ☐
Uterine bleeding	16 ☐
None	00 ☐
Other (Specify)	17 ☐

38b. OTHER RISK FACTORS FOR THIS PREGNANCY (Complete all items)

Tobacco use during pregnancy: Yes ☐ No ☐ Average number cigarettes per day ____

Alcohol use during pregnancy: Yes ☐ No ☐ Average number drinks per week ____

Weight gained during pregnancy ____ lbs

39. OBSTETRIC PROCEDURES (Check all that apply)

Amniocentesis	01 ☐
Electronic fetal monitoring	02 ☐
Induction of labor	03 ☐
Stimulation of labor	04 ☐
Tocolysis	05 ☐
Ultrasound	06 ☐
None	00 ☐
Other (Specify)	07 ☐

40. COMPLICATIONS OF LABOR AND/OR DELIVERY (Check all that apply)

Febrile (> 100°F or 38°C)	01 ☐
Meconium, moderate/heavy	02 ☐
Premature rupture of membrane (> 12 hours)	03 ☐
Abruptio placenta	04 ☐
Placenta previa	05 ☐
Other excessive bleeding	06 ☐
Seizures during labor	07 ☐
Precipitous labor (< 3 hours)	08 ☐
Prolonged labor (> 20 hours)	09 ☐
Dysfunctional labor	10 ☐
Breech/Malpresentation	11 ☐
Cephalopelvic disproportion	12 ☐
Cord prolapse	13 ☐
Anesthetic complications	14 ☐
Fetal distress	15 ☐
None	00 ☐
Other (Specify)	16 ☐

41. METHOD OF DELIVERY (Check all that apply)

Vaginal	01 ☐
Vaginal birth after previous C section	02 ☐
Primary C section	03 ☐
Repeat C section	04 ☐
Forceps	05 ☐
Vacuum	06 ☐

42. ABNORMAL CONDITIONS OF THE NEWBORN (Check all that apply)

Anemia (Hct < 39/Hgb < 13)	01 ☐
Birth injury	02 ☐
Fetal alcohol syndrome	03 ☐
Hyaline membrane disease/RDS	04 ☐
Meconium aspiration syndrome	05 ☐
Assisted ventilation < 30 min	06 ☐
Assisted ventilation ≥ 30 min	07 ☐
Seizures	08 ☐
None	00 ☐
Other (Specify)	09 ☐

43 CONGENITAL ANOMALIES OF CHILD (Check all that apply)

Anencephalus	01 ☐
Spina bifida/Meningocele	02 ☐
Hydrocephalus	03 ☐
Microcephalus	04 ☐
Other central nervous system anomalies (Specify)	05 ☐
Heart malformations	06 ☐
Other circulatory/respiratory anomalies (Specify)	07 ☐
Rectal atresia/stenosis	08 ☐
Tracheo-esophageal fistula/Esophageal atresia	09 ☐
Omphalocele/Gastroschisis	10 ☐
Other gastrointestinal anomalies (Specify)	11 ☐
Malformed genitalia	12 ☐
Renal agenesis	13 ☐
Other urogenital anomalies (Specify)	14 ☐
Cleft lip/palate	15 ☐
Polydactyly/Syndactyly/Adactyly	16 ☐
Club foot	17 ☐
Diaphragmatic hernia	18 ☐
Other musculoskeletal/integumental anomalies (Specify)	19 ☐
Down's syndrome	20 ☐
Other chromosomal anomalies (Specify)	21 ☐
None	00 ☐
Other (Specify)	22 ☐

DEPARTMENT OF HEALTH AND HUMAN SERVICES - PUBLIC HEALTH SERVICE - CENTERS FOR DISEASE CONTROL
NATIONAL CENTER FOR HEALTH STATISTICS - 1989 REVISION

CDC 64.91
REV. 1/89

Table A. Percent of Birth Records on Which Specified Items Were Not Stated: United States and Each State and territory, 2001

[By place of residence]

Area	All births	Place of birth	Attendant at birth	Mother's birthplace	Father's age	Father's race	Hispanic origin		Educational attainment of mother
							Mother	Father	
Total of reporting areas 1/	4,025,933	0.0	0.0	0.3	13.5	14.1	0.6	14.1	1.4
Alabama	60,454	0.0	0.0	0.1	21.4	21.5	0.1	21.4	0.2
Alaska	10,003	0.2	0.1	0.7	12.2	13.8	8.7	17.3	3.4
Arizona	85,597	0.0	0.0	0.1	18.3	19.5	1.3	19.9	2.3
Arkansas	37,010	0.0	0.0	0.4	19.7	21.0	0.4	20.3	0.7
California	527,759	0.0	0.1	0.2	7.1	6.7	0.6	6.3	1.6
Colorado	67,007	-	0.0	0.4	8.1	8.5	0.0	8.6	1.1
Connecticut	42,648	0.0	0.0	0.3	10.2	11.6	1.2	11.3	1.5
Delaware	10,749	-	-	0.1	29.7	30.4	0.1	29.6	0.6
District of Columbia	7,625	-	-	0.1	39.2	47.4	0.6	39.1	7.0
Florida	205,793	0.0	0.0	0.1	16.7	17.0	0.2	18.5	0.7
Georgia	133,526	0.0	0.0	0.2	17.6	17.8	1.2	18.5	1.2
Hawaii	17,072	-	0.0	0.1	9.4	9.5	0.1	9.2	0.8
Idaho	20,688	0.0	0.0	0.7	8.2	11.7	1.9	12.4	3.1
Illinois	184,064	0.0	0.0	0.1	13.4	15.2	0.0	15.1	1.1
Indiana	86,459	0.0	0.0	0.1	12.6	12.6	0.4	12.9	0.6
Iowa	37,619	-	0.0	0.0	12.6	14.3	0.3	14.0	0.3
Kansas	38,869	-	0.1	0.1	10.4	11.2	1.1	11.9	0.4
Kentucky	54,658	0.0	0.1	0.0	19.6	22.2	0.0	22.4	0.3
Louisiana	65,352	0.0	0.0	0.0	20.3	20.3	0.1	20.3	0.1
Maine	13,759	-	-	-	8.6	12.4	0.4	10.4	0.9
Maryland	73,218	0.0	0.0	0.4	11.5	12.7	0.4	10.7	1.4
Massachusetts	81,077	0.0	0.0	0.0	7.0	7.4	0.8	6.7	0.3
Michigan	133,427	0.0	0.1	0.1	14.2	16.4	1.4	17.3	2.2
Minnesota	67,562	0.0	0.0	0.2	9.4	13.5	0.7	13.3	2.3
Mississippi	42,282	-	0.0	0.1	22.1	22.0	0.1	22.1	0.3
Missouri	75,464	0.0	-	0.2	18.5	18.3	0.1	17.8	0.7
Montana	10,970	-	0.2	0.0	9.8	11.0	2.9	13.6	0.1
Nebraska	24,820	-	-	-	11.8	13.3	2.1	13.8	0.1
Nevada	31,382	0.0	0.0	0.5	20.0	20.9	1.1	20.0	2.9
New Hampshire	14,656	-	-	0.1	5.4	7.5	4.5	10.8	1.3
New Jersey	115,795	0.0	0.0	0.1	7.9	9.5	0.3	8.3	2.9
New Mexico	27,128	-	0.0	1.3	21.0	20.5	0.0	20.5	2.9
New York	254,026	0.1	0.0	0.4	14.0	14.4	1.1	14.8	1.0
North Carolina	118,185	-	0.0	0.0	15.7	15.8	0.1	16.1	0.2
North Dakota	7,629	0.0	-	0.0	8.5	8.9	2.5	11.5	0.5
Ohio	151,570	0.0	0.0	1.1	14.9	15.5	0.2	15.0	0.9
Oklahoma	50,118	0.0	0.0	0.0	17.5	18.8	0.2	18.4	0.3
Oregon	45,322	-	-	0.1	10.3	4.0	0.3	4.3	1.2
Pennsylvania	143,495	0.0	0.0	0.9	5.0	5.4	0.7	4.2	2.7
Rhode Island	12,713	-	-	0.5	13.4	13.9	9.9	20.5	2.4
South Carolina	55,756	-	-	0.1	27.1	27.3	0.1	27.1	1.1
South Dakota	10,483	-	-	0.0	13.1	13.2	0.1	13.4	0.3
Tennessee	78,340	0.0	0.0	0.1	15.3	15.5	0.0	15.5	0.3
Texas	365,410	0.0	0.0	0.5	14.2	14.4	0.3	14.4	2.0
Utah	47,959	-	-	0.2	8.4	10.0	0.6	9.4	1.6
Vermont	6,366	-	-	0.1	7.6	13.6	3.0	15.9	0.9
Virginia	98,884	-	0.0	0.1	16.6	18.5	0.2	16.7	1.0
Washington	79,570	0.0	0.1	0.5	10.6	13.1	1.7	13.3	6.1
West Virginia	20,428	0.2	0.0	0.1	12.7	13.1	0.3	13.2	0.6
Wisconsin	69,072	0.0	0.0	0.1	29.5	29.6	0.0	29.6	0.3
Wyoming	6,115	-	-	0.1	13.6	14.0	0.1	13.8	0.3
Puerto Rico	55,866	0.0	0.1	-	3.4	4.2	---	---	0.3
Virgin Islands	1,669	-	0.1	-	19.4	21.0	3.1	24.7	1.7
Guam	3,565	0.1	0.9	0.8	22.1	23.1	2.6	27.5	1.6
American Samoa	1,655	-	0.2	5.1	28.3	30.3	---	---	---
Northern Marianas	1,449	-	0.3	-	7.4	4.1	---	---	3.0

Table A. Percent of Birth Records on Which Specified Items Were Not Stated: United States and Each State and territory, 2001 --Con.

[By place of residence]

Area	All births	Live-birth order	Length of gestation	Month prenatal care began	Number of prenatal visits	Birth weight	5-minute apgar score	Medical risk factors
Total of reporting areas 1/	4,025,933	0.3	1.0	2.4	3.1	0.1	0.4	0.9
Alabama	60,454	0.0	0.1	0.3	0.3	0.1	0.3	0.0
Alaska	10,003	2.1	0.4	4.1	7.2	0.4	0.6	2.7
Arizona	85,597	0.3	0.1	1.6	2.9	0.1	0.3	0.0
Arkansas	37,010	0.2	0.2	1.8	2.4	0.1	3.3	0.1
California	527,759	0.1	2/5.9	1.6	2.8	0.0	---	0.0
Colorado	67,007	0.0	0.0	1.6	2.3	0.0	0.3	0.0
Connecticut	42,648	0.7	0.2	1.9	4.1	0.0	0.6	2.4
Delaware	10,749	0.1	0.1	0.2	0.4	0.1	0.2	0.0
District of Columbia	7,625	1.1	0.3	14.3	9.6	0.0	1.0	-
Florida	205,793	0.0	0.1	1.2	2.1	0.1	0.2	0.0
Georgia	133,526	0.4	0.1	4.4	3.9	0.0	0.4	0.4
Hawaii	17,072	0.0	0.7	2.5	2.5	0.1	0.5	0.4
Idaho	20,688	0.2	0.5	6.7	4.2	0.1	0.6	0.4
Illinois	184,064	0.1	0.2	2.5	2.7	0.1	0.3	0.0
Indiana	86,459	0.1	0.1	0.9	2.2	0.4	0.3	0.1
Iowa	37,619	0.0	0.1	0.5	1.4	0.1	0.3	0.1
Kansas	38,869	0.0	0.1	0.9	1.1	0.0	0.4	3/0.2
Kentucky	54,658	0.0	0.1	1.2	1.5	0.2	0.4	4.6
Louisiana	65,352	0.1	0.1	0.4	0.4	0.0	0.3	0.1
Maine	13,759	0.4	0.1	0.5	0.7	0.1	0.2	0.1
Maryland	73,218	0.2	0.4	2.3	3.4	0.0	0.5	0.0
Massachusetts	81,077	0.3	0.4	1.5	0.5	0.4	0.4	0.5
Michigan	133,427	0.2	0.1	1.9	2.5	0.1	0.3	0.0
Minnesota	67,562	0.5	0.5	4.0	4.8	0.1	0.4	8.2
Mississippi	42,282	0.1	0.1	0.6	1.1	0.0	0.2	0.1
Missouri	75,464	0.3	0.2	2.2	3.8	0.1	0.5	0.1
Montana	10,970	0.0	0.1	0.4	0.3	0.1	0.4	0.0
Nebraska	24,820	0.0	0.0	0.4	0.4	0.0	0.1	0.0
Nevada	31,382	0.8	1.0	4.1	8.1	0.0	1.1	8.6
New Hampshire	14,656	0.2	0.2	2.1	1.9	0.1	0.2	0.0
New Jersey	115,795	0.1	0.1	3.9	3.9	0.1	0.3	0.8
New Mexico	27,128	1.4	0.2	5.1	5.1	0.2	3.4	0.0
New York	254,026	0.3	0.1	4.6	2.9	0.1	0.2	2.3
North Carolina	118,185	0.0	0.0	0.6	0.6	0.0	0.3	0.0
North Dakota	7,629	0.0	0.1	0.9	0.7	0.1	0.2	0.2
Ohio	151,570	1.1	0.0	1.9	2.9	0.1	0.2	0.0
Oklahoma	50,118	0.7	0.1	1.9	0.7	0.1	1.1	1.4
Oregon	45,322	0.0	0.0	0.1	0.2	0.0	0.4	0.7
Pennsylvania	143,495	0.5	0.4	5.0	6.4	0.1	0.4	0.1
Rhode Island	12,713	1.1	0.2	2.6	3.0	0.1	0.3	6.0
South Carolina	55,756	0.1	0.1	0.9	1.0	0.0	0.2	0.0
South Dakota	10,483	-	0.0	0.3	0.3	0.0	0.3	0.0
Tennessee	78,340	0.1	0.2	1.8	1.9	0.0	0.2	0.0
Texas	365,410	1.1	0.9	3.2	6.7	0.1	---	6/1.2
Utah	47,959	0.3	0.1	2.2	2.8	0.1	0.3	0.1
Vermont	6,366	0.5	0.2	4.0	2.2	0.3	0.3	0.3
Virginia	98,884	0.0	0.0	0.3	1.1	0.1	0.2	0.0
Washington	79,570	1.4	0.8	8.2	9.7	0.3	0.6	12.7
West Virginia	20,428	0.0	0.1	3.4	2.0	0.1	0.3	1.9
Wisconsin	69,072	0.0	0.0	0.3	0.4	0.0	0.4	0.1
Wyoming	6,115	-	0.1	0.4	0.6	0.0	0.2	0.0
Puerto Rico	55,866	0.0	0.1	0.3	0.1	0.0	0.1	0.0
Virgin Islands	1,669	1.3	0.6	0.1	2.0	0.1	2.2	2.5
Guam	3,565	1.5	0.2	1.7	2.6	0.2	0.9	2.1
American Samoa	1,655	-	---	---	---	-	---	---
Northern Marianas	1,449	0.7	0.8	2.0	2.1	0.6	1.5	---

Table A. Percent of Birth Records on Which Specified Items Were Not Stated: United States and Each State and territory, 2001 --Con.

[By place of residence]

Area	All births	Tobacco use	Alcohol use	Weight gain	Obstetric procedures	Complications of labor and/or delivery	Method of delivery	Abnormal conditions of newborn	Congenital anomalies
Total of reporting areas 1/	4,025,933	0.7	0.9	7.0	0.5	0.6	0.5	1.0	0.9
Alabama	60,454	0.1	0.1	3.6	0.0	0.0	0.4	0.0	0.0
Alaska	10,003	0.9	1.1	7.6	2.6	2.8	0.5	2.3	2.2
Arizona	85,597	1.2	1.3	17.3	0.0	0.0	0.4	0.0	11/0.3
Arkansas	37,010	0.7	0.8	7.7	0.1	0.1	0.3	0.1	0.1
California	527,759	---	---	---	0.0	0.0	0.0	0.0	0.0
Colorado	67,007	0.3	0.3	3.4	0.0	0.0	-	0.0	0.2
Connecticut	42,648	1.0	1.1	6.9	2.3	2.1	0.6	2.7	2.8
Delaware	10,749	0.1	0.1	0.8	0.0	-	0.0	0.0	-
District of Columbia	7,625	0.0	0.0	15.1	-	-	0.1	0.0	-
Florida	205,793	0.1	0.1	5.8	0.0	0.0	0.7	0.0	0.0
Georgia	133,526	0.5	0.5	10.0	0.0	0.0	0.5	0.0	0.0
Hawaii	17,072	0.1	0.1	14.4	0.2	0.3	0.4	0.2	0.2
Idaho	20,688	0.6	0.7	10.9	0.3	0.4	0.5	0.6	0.7
Illinois	184,064	0.2	0.1	4.3	0.0	0.0	0.4	0.0	0.1
Indiana	86,459	4/0.2	0.2	2.8	0.0	0.1	0.5	0.1	0.1
Iowa	37,619	0.1	0.1	0.7	0.0	0.1	0.5	0.0	0.1
Kansas	38,869	0.2	0.2	0.2	0.1	0.1	0.3	0.2	0.2
Kentucky	54,658	2.7	3.2	8.0	2.5	4.7	3.2	6.8	5.5
Louisiana	65,352	0.1	0.1	5.6	0.1	0.1	0.2	0.1	0.1
Maine	13,759	0.9	1.3	1.7	0.0	0.1	0.2	0.1	0.1
Maryland	73,218	0.2	0.2	4.5	0.0	0.0	0.2	0.0	0.0
Massachusetts	81,077	0.3	0.2	0.8	0.5	0.5	0.6	0.6	0.9
Michigan	133,427	1.1	1.1	7.7	0.0	0.0	0.4	0.0	0.0
Minnesota	67,562	8.1	8.2	17.9	6.4	8.1	2.6	9.2	9.2
Mississippi	42,282	0.3	0.3	5.6	0.0	0.1	0.3	0.0	0.0
Missouri	75,464	0.4	0.4	3.1	0.1	0.1	0.6	0.1	0.1
Montana	10,970	0.8	1.1	1.0	0.0	0.0	0.3	0.0	0.0
Nebraska	24,820	0.0	0.0	1.6	0.0	0.1	0.3	7/0.0	0.0
Nevada	31,382	1.6	1.6	7.7	1.5	4.1	1.2	3.1	7.8
New Hampshire	14,656	0.6	0.6	4.2	0.0	0.0	0.4	0.0	0.1
New Jersey	115,795	0.7	0.8	5.8	0.1	0.6	0.6	4.3	2.1
New Mexico	27,128	1.3	1.4	8.8	0.0	0.0	0.5	0.0	---
New York	254,026	4/0.2	0.2	5.9	0.3	0.5	0.4	8/2.3	2.2
North Carolina	118,185	0.2	0.2	2.3	0.0	0.0	0.5	0.0	0.0
North Dakota	7,629	0.5	0.9	2.9	0.2	0.1	1.8	0.2	0.2
Ohio	151,570	0.3	0.3	3.2	0.0	0.0	0.6	0.0	0.0
Oklahoma	50,118	0.8	0.9	1.7	1.3	1.6	1.6	2.9	11/3.0
Oregon	45,322	0.8	0.8	1.9	0.0	0.0	0.5	0.0	0.0
Pennsylvania	143,495	0.9	1.0	11.1	0.0	0.0	0.0	0.1	0.0
Rhode Island	12,713	1.7	1.8	13.2	6.2	6.0	0.4	10.8	10.9
South Carolina	55,756	0.1	0.1	1.6	0.0	0.0	0.7	0.0	0.0
South Dakota	10,483	5/0.1	5/0.2	1.1	-	0.0	0.3	0.0	0.0
Tennessee	78,340	0.2	0.2	9.3	0.0	0.0	0.5	0.0	0.0
Texas	365,410	1.1	1.1	12.6	0.0	9/0.0	0.7	7/0.0	0.1
Utah	47,959	0.7	0.7	4.1	0.0	0.0	0.0	0.1	0.1
Vermont	6,366	0.9	0.5	2.7	0.3	0.3	0.1	0.3	0.3
Virginia	98,884	0.0	0.0	3.6	0.0	0.0	0.3	0.2	0.0
Washington	79,570	2.5	9.7	23.8	10.1	11.9	0.4	12.4	12.5
West Virginia	20,428	0.8	1.4	9.1	0.2	1.0	0.3	3.1	0.7
Wisconsin	69,072	0.1	0.1	2.2	0.0	0.1	0.0	10/0.1	0.1
Wyoming	6,115	0.2	0.2	1.8	-	-	0.0	-	0.0
Puerto Rico	55,866	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.1
Virgin Islands	1,669	0.4	0.5	16.2	1.4	2.9	0.9	4.4	3.8
Guam	3,565	0.5	0.6	4.8	1.1	3.2	0.4	2.3	2.2
American Samoa	1,655	---	---	---	---	---	---	---	---
Northern Marianas	1,449	5/0.6	5/0.6	---	---	---	1.6	---	---

0.0 Quantity more than zero but less than 0.05.
- Quantity zero.
--- Data not available.
1/ Excludes data for Puerto Rico, Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Marianas.
2/ California reports date last normal menses began but does not report clinical estimate of gestation.
3/ Kansas does not report Rh sensitization.
4/ Indiana and New York State report tobacco use but do not report the average number of cigarettes smoked per day in standard categories; data for New York City are reported in standard categories.
5/ South Dakota and the Commonwealth of the Northern Marianas report tobacco and alcohol use but do not report the average number of cigarettes smoked per day or the average number of drinks per week.
6/ Texas does not report genital herpes or uterine bleeding.
7/ Nebraska and Texas do not report birth injury.
8/ New York City does not report assisted ventilation less than 30 minutes or assisted ventilation of 30 minutes or more.
9/ Texas does not report anesthetic complications and fetal distress.
10/ Wisconsin does not report fetal alcohol syndrome.
11/ Rates of "Other central nervous system anomalies" may be overstated for Arizona and Oklahoma for 2001.

Table B. Births by State of occurrence and residence for births occurring in the 50 States and the District of Columbia, 2001

Area	Occurrence	Residence
United States	4,031,531	4,025,933
Alabama	59,766	60,454
Alaska	9,907	10,003
Arizona	85,757	85,597
Arkansas	36,301	37,010
California	528,539	527,759
Colorado	67,100	67,007
Connecticut	43,179	42,648
Delaware	11,360	10,749
District of Columbia	15,037	7,625
Florida	205,991	205,793
Georgia	134,402	133,526
Hawaii	17,127	17,072
Idaho	20,161	20,688
Illinois	181,086	184,064
Indiana	86,710	86,459
Iowa	37,756	37,619
Kansas	39,052	38,869
Kentucky	53,227	54,658
Louisiana	65,620	65,352
Maine	13,567	13,759
Maryland	68,663	73,218
Massachusetts	82,237	81,077
Michigan	132,159	133,427
Minnesota	67,428	67,562
Mississippi	41,145	42,282
Missouri	76,690	75,464
Montana	10,935	10,970
Nebraska	25,107	24,820
Nevada	31,007	31,382
New Hampshire	14,055	14,656
New Jersey	112,639	115,795
New Mexico	26,808	27,128
New York State only	131,017	134,408
New York City only	124,012	119,618
North Carolina	119,132	118,185
North Dakota	8,839	7,629
Ohio	152,033	151,570
Oklahoma	48,895	50,118
Oregon	46,200	45,322
Pennsylvania	143,957	143,495
Rhode Island	13,319	12,713
South Carolina	53,255	55,756
South Dakota	10,784	10,483
Tennessee	83,521	78,340
Texas	370,482	365,410
Utah	49,041	47,959
Vermont	6,149	6,366
Virginia	96,535	98,884
Washington	79,078	79,570
West Virginia	21,000	20,428
Wisconsin	68,006	69,072
Wyoming	5,758	6,115
Occurrence in U.S. Territories or Foreign Countries	-	5,598
Puerto Rico	-	18
Virgin Islands	-	43
Guam	-	5
American Samoa	-	-
Northern Marianas	-	-
Canada	-	206
Cuba	-	1
Mexico	-	4,706
Remainder of world	-	619

- Quantity zero.

Table C. Lower and upper 95 percent and 96 percent confidence limit factors for a birth rate based on a Poisson variable of 1 through 99 births, *B*

B	L(1- a=.95,*B*)	U(1- a =.95,*B*)	L(1- a =.96,*B*)	U(1- a =.96,*B*)
1	0.02532	5.57164	0.02020	5.83392
2	0.12110	3.61234	0.10735	3.75830
3	0.20622	2.92242	0.18907	3.02804
4	0.27247	2.56040	0.25406	2.64510
5	0.32470	2.33367	0.30591	2.40540
6	0.36698	2.17658	0.34819	2.23940
7	0.40205	2.06038	0.38344	2.11666
8	0.43173	1.97040	0.41339	2.02164
9	0.45726	1.89831	0.43923	1.94553
10	0.47954	1.83904	0.46183	1.88297
11	0.49920	1.78928	0.48182	1.83047
12	0.51671	1.74680	0.49966	1.78566
13	0.53246	1.71003	0.51571	1.74688
14	0.54671	1.67783	0.53027	1.71292
15	0.55969	1.64935	0.54354	1.68289
16	0.57159	1.62394	0.55571	1.65610
17	0.58254	1.60110	0.56692	1.63203
18	0.59266	1.58043	0.57730	1.61024
19	0.60207	1.56162	0.58695	1.59042
20	0.61083	1.54442	0.59594	1.57230
21	0.61902	1.52861	0.60435	1.55563
22	0.62669	1.51401	0.61224	1.54026
23	0.63391	1.50049	0.61966	1.52602
24	0.64072	1.48792	0.62666	1.51278
25	0.64715	1.47620	0.63328	1.50043
26	0.65323	1.46523	0.63954	1.48888
27	0.65901	1.45495	0.64549	1.47805
28	0.66449	1.44528	0.65114	1.46787
29	0.66972	1.43617	0.65652	1.45827
30	0.67470	1.42756	0.66166	1.44922
31	0.67945	1.41942	0.66656	1.44064
32	0.68400	1.41170	0.67125	1.43252
33	0.68835	1.40437	0.67575	1.42480
34	0.69253	1.39740	0.68005	1.41746
35	0.69654	1.39076	0.68419	1.41047
36	0.70039	1.38442	0.68817	1.40380
37	0.70409	1.37837	0.69199	1.39743
38	0.70766	1.37258	0.69568	1.39134
39	0.71110	1.36703	0.69923	1.38550
40	0.71441	1.36172	0.70266	1.37991
41	0.71762	1.35661	0.70597	1.37454
42	0.72071	1.35171	0.70917	1.36938
43	0.72370	1.34699	0.71227	1.36442
44	0.72660	1.34245	0.71526	1.35964
45	0.72941	1.33808	0.71816	1.35504
46	0.73213	1.33386	0.72098	1.35060
47	0.73476	1.32979	0.72370	1.34632
48	0.73732	1.32585	0.72635	1.34218
49	0.73981	1.32205	0.72892	1.33818
50	0.74222	1.31838	0.73142	1.33431

Table C. Lower and upper 95 percent and 96 percent confidence limit factors for a birth rate based on a Poisson variable of 1 through 99 births, B --Con.

B	L(1- a=.95,B)	U(1- a =.95,B)	L(1- a =.96,B)	U(1- a =.96,B)
51	0.74457	1.31482	0.73385	1.33057
52	0.74685	1.31137	0.73621	1.32694
53	0.74907	1.30802	0.73851	1.32342
54	0.75123	1.30478	0.74075	1.32002
55	0.75334	1.30164	0.74293	1.31671
56	0.75539	1.29858	0.74506	1.31349
57	0.75739	1.29562	0.74713	1.31037
58	0.75934	1.29273	0.74916	1.30734
59	0.76125	1.28993	0.75113	1.30439
60	0.76311	1.28720	0.75306	1.30152
61	0.76492	1.28454	0.75494	1.29873
62	0.76669	1.28195	0.75678	1.29601
63	0.76843	1.27943	0.75857	1.29336
64	0.77012	1.27698	0.76033	1.29077
65	0.77178	1.27458	0.76205	1.28826
66	0.77340	1.27225	0.76373	1.28580
67	0.77499	1.26996	0.76537	1.28340
68	0.77654	1.26774	0.76698	1.28106
69	0.77806	1.26556	0.76856	1.27877
70	0.77955	1.26344	0.77011	1.27654
71	0.78101	1.26136	0.77162	1.27436
72	0.78244	1.25933	0.77310	1.27223
73	0.78384	1.25735	0.77456	1.27014
74	0.78522	1.25541	0.77598	1.26810
75	0.78656	1.25351	0.77738	1.26610
76	0.78789	1.25165	0.77876	1.26415
77	0.78918	1.24983	0.78010	1.26223
78	0.79046	1.24805	0.78143	1.26036
79	0.79171	1.24630	0.78272	1.25852
80	0.79294	1.24459	0.78400	1.25672
81	0.79414	1.24291	0.78525	1.25496
82	0.79533	1.24126	0.78648	1.25323
83	0.79649	1.23965	0.78769	1.25153
84	0.79764	1.23807	0.78888	1.24987
85	0.79876	1.23652	0.79005	1.24824
86	0.79987	1.23499	0.79120	1.24664
87	0.80096	1.23350	0.79233	1.24507
88	0.80203	1.23203	0.79344	1.24352
89	0.80308	1.23059	0.79453	1.24201
90	0.80412	1.22917	0.79561	1.24052
91	0.80514	1.22778	0.79667	1.23906
92	0.80614	1.22641	0.79771	1.23762
93	0.80713	1.22507	0.79874	1.23621
94	0.80810	1.22375	0.79975	1.23482
95	0.80906	1.22245	0.80074	1.23345
96	0.81000	1.22117	0.80172	1.23211
97	0.81093	1.21992	0.80269	1.23079
98	0.81185	1.21868	0.80364	1.22949
99	0.81275	1.21746	0.80458	1.22822

Table D. Sources for resident population and population including Armed Forces abroad: Birth- and death-registration States, 1900-32, and United States, 1900-2001.

Year	Source
2001	U.S. Census Bureau. Monthly National Population Estimates. Washington, DC: U.S. Census Bureau. Internet release, November 26, 2002. Http://eire.census.gov/popest/data/national/tables/NA-EST2001-04.php
2000	U.S. Census Bureau. Monthly National Population Estimates. Washington, DC: U.S. Census Bureau. Internet release, November 26, 2002. Http://eire.census.gov/popest/data/national/tables/NA-EST2001-04.php
1999	U.S. Census Bureau, United States population estimates, by age, sex, race, and Hispanic origin: 1980 to 1999. Washington: U.S. Bureau of the Census. Internet release, April 11, 2000. Http://www.census.gov/population/www/estimates/nat_90s_1.html.
1998	U.S. Bureau of the Census, United States population estimates, by age, sex, race, and Hispanic origin: 1990 to 1998. Washington: U.S. Bureau of the Census. Internet release, June 4, 1999. Http://www.census.gov/population/www/estimates/uspop.html.
1997	U.S. Bureau of the Census, United States population estimates, by age, sex, race, and Hispanic origin: 1990 to 1997. PPL-91R. Rounded populations consistent with U.S. Bureau of the Census file NESTV97. Washington: U.S. Department of Commerce. 1998.
1996	U.S. Bureau of the Census, United States population estimates, by age, sex, race, and Hispanic origin: 1990 to 1996. PPL-57. Washington: U.S. Department of Commerce. 1997.
1995	U.S. Bureau of the Census, United States population estimates, by age, sex, race, and Hispanic origin: 1990 to 1995. Census file RESD0795, PPL-41. Washington: U.S. Department of Commerce. 1996.
1994	U.S. Bureau of the Census, United States population estimates, by age, sex, race, and Hispanic origin: 1990 to 1994. PPL-21. Washington: U.S. Department of Commerce. 1995.
1993	U.S. Bureau of the Census, United States population estimates, by age, sex, race, and Hispanic origin: 1993. Census file RESO793. Washington: U.S. Department of Commerce. 1995.
1992	U.S. Bureau of the Census, United States population estimates, by age, sex, race, and Hispanic origin: 1992. Census file RESPO792. Washington: U.S. Department of Commerce. 1994.
1991	U.S. Bureau of the Census, Unpublished data consistent with Current Population Reports, Series P-25, No. 1095, Feb. 1993.
1990	U.S. Bureau of the Census, Unpublished data from the 1990 census. 1990 CPH-L-74 and unpublished data consistent with Current Population Reports, Series P-25, No. 1095, Feb. 1993.
1989	U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 1057, Mar. 1990.
1988	U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 1045, Jan. 1990.
1986-87	U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 1022, Mar. 1988.
1985	U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 1000, Feb. 1987.
1984	U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 985, Apr. 1986.
1983	U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 965, Mar. 1985.
1982	U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 949, May 1984.
1981	U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 929, May 1983.
1980	U.S. Bureau of the Census, U.S. Census of Population: 1980, Number of Inhabitants, PC80-1-A1, United States Summary, 1983.
1971-79	U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 917, July 1982.
1970	U.S. Bureau of the Census, U.S. Census of Population: 1970, Number of Inhabitants, Final Report PC(1)-A1, United States Summary, 1971.
1961-69	U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 519, April 1974.
1960	U.S. Bureau of the Census, U.S. Census of Population: 1960, Number of Inhabitants, PC(1)-A1, United States Summary, 1964.
1951-59	U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 310, June 30, 1965.
1940-50	U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 499, May 1973.
1930-39	U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 499, May 1973, and National Office of Vital Statistics, Vital Statistics Rates in the United States, 1900-1940, 1947.
1920-29	National Office of Vital Statistics, Vital Statistics Rates in the United States, 1900-1940, 1947.
1917-19	Same as for 1930-39.
1900-1916	Same as for 1920-29.

Table E. Ratio of census-level resident population to resident population adjusted for estimated net census undercount by age, sex, and race: United States, April 1, 1990

Age	Total			White			Black		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
All ages	0.9815	0.9721	0.9906	0.9802	0.9728	0.9873	0.9432	0.9151	0.9699
10-14	0.9882	0.9891	0.9873	0.9830	0.9841	0.9818	0.9591	0.9586	0.9595
15-19	1.0166	1.0198	1.0133	1.0094	1.0128	1.0059	0.9988	1.0016	0.9959
20-24	1.0002	0.9987	1.0017	0.9975	0.9985	0.9966	0.9593	0.9432	0.9753
25-29	0.9591	0.9439	0.9748	0.9558	0.9441	0.9681	0.9123	0.8732	0.9510
30-34	0.9687	0.9487	0.9892	0.9669	0.9518	0.9828	0.9129	0.8599	0.9651
35-39	0.9790	0.9628	0.9954	0.9764	0.9643	0.9888	0.9303	0.8808	0.9778
40-44	0.9901	0.9758	1.0044	0.9875	0.9764	0.9988	0.9410	0.8943	0.9850
45-49	0.9775	0.9633	0.9916	0.9762	0.9648	0.9877	0.9302	0.8807	0.9762
50-54	…	0.9623	…	…	0.9651	…	…	0.8802	…
55 years and over	…	0.9758	…	…	0.9783	…	…	0.9294	…
15-44	…	…	0.9954	…	…	0.9890	…	…	0.9739
15-54	…	0.9710	…	…	0.9710	…	…	0.9046	…

… Category not applicable.

Table 4-1. Population of birth- and death-registration States, 1900-32, and United States, 1900-2001

[Population enumerated as of April 1 for 1940, 1950, 1960, 1970, 1980, 1990, and 2000 and estimated as of July 1 for all other years]

Year	United States/1		Year	United States/1		Birth-registration States		Death-registration States	
	Population including Armed Forces abroad	Population residing in area		Population including Armed Forces abroad	Population residing in area	Number of States/2	Population residing in area	Number of States/2	Population residing in area
2001	285,024,000	284,796,887	1950	151,132,000	150,697,361	. . .	. . .	. . .	. . .
2000	281,652,000	281,421,906	1949	149,188,000	148,665,000	. . .	. . .	. . .	. . .
1999/3	272,945,300	272,690,813	1948	146,631,000	146,093,000	. . .	. . .	. . .	. . .
1998/3	270,509,187	270,298,524	1947	144,126,000	143,446,000	. . .	. . .	. . .	. . .
1997/3	267,901,000	267,636,061	1946	141,389,000	140,054,000	. . .	. . .	. . .	. . .
1996/3	265,556,890	265,283,783	1945	139,928,000	132,481,000	. . .	. . .	. . .	. . .
1995/3	263,033,968	262,755,270	1944	138,397,000	132,885,000	. . .	. . .	. . .	. . .
1994/3	260,650,690	260,340,990	1943	136,739,000	134,245,000	. . .	. . .	. . .	. . .
1993/3	258,119,768	257,783,004	1942	134,860,000	133,920,000	. . .	. . .	. . .	. . .
1992/3	255,457,501	255,077,536	1941	133,402,000	133,121,000	. . .	. . .	. . .	. . .
1991/3	252,688,000	252,177,000	1940	131,820,000	131,669,275	. . .	. . .	. . .	. . .
1990	249,225,000	248,709,873	1939	131,028,000	130,879,718	. . .	. . .	. . .	. . .
1989	247,342,000	246,819,000	1938	129,969,000	129,824,939	. . .	. . .	. . .	. . .
1988	245,021,000	244,499,000	1937	128,961,000	128,824,829	. . .	. . .	. . .	. . .
1987	242,804,000	242,289,000	1936	128,181,000	128,053,180	. . .	. . .	. . .	. . .
1986	240,651,000	240,133,000	1935	127,362,000	127,250,232	. . .	. . .	. . .	. . .
1985	238,466,000	237,924,000	1934	126,485,000	126,373,773	. . .	. . .	. . .	. . .
1984	236,348,000	235,825,000	1933	125,690,000	125,578,763	. . .	. . .	. . .	. . .
1983	234,307,000	233,792,000	1932	124,949,000	124,840,471	47	118,903,899	47	118,903,899
1982	232,188,000	231,664,000	1931	124,149,000	124,039,648	46	117,455,229	47	118,148,987
1981	229,966,000	229,466,000	1930	123,188,000	123,076,741	46	116,544,946	47	117,238,278
1980	227,061,000	226,545,805	1929	- - -	121,769,939	46	115,317,450	46	115,317,450
1979	225,055,000	224,567,000	1928	- - -	120,501,115	44	113,636,160	44	113,636,160
1978	222,585,000	222,095,000	1927	- - -	119,038,062	40	104,320,830	42	107,084,532
1977	220,239,000	219,760,000	1926	- - -	117,399,225	35	90,400,590	41	103,822,683
1976	218,035,000	217,563,000	1925	- - -	115,831,963	33	88,294,564	40	102,031,555
1975	215,973,000	215,465,000	1924	- - -	114,113,463	33	87,000,295	39	99,318,098
1974	213,854,000	213,342,000	1923	- - -	111,949,945	30	81,072,123	38	96,788,197
1973	211,909,000	211,357,000	1922	- - -	110,054,778	30	79,560,746	37	92,702,901
1972	209,896,000	209,284,000	1921	- - -	108,541,489	27	70,807,090	34	87,814,447
1971	207,661,000	206,827,000	1920	- - -	106,466,420	23	63,597,307	34	86,079,263
1970	204,270,000	203,211,926	1919	105,063,000	104,512,110	22	61,212,076	33	83,157,982
1969	202,677,000	201,385,000	1918	104,550,000	103,202,801	20	55,153,782	30	79,008,412
1968	200,706,000	199,399,000	1917	103,414,000	103,265,913	20	55,197,952	27	70,234,775
1967	198,712,000	197,457,000	1916	- - -	101,965,984	11	32,944,013	26	66,971,177
1966	196,560,000	195,576,000	1915	- - -	100,549,013	10	31,096,697	24	61,894,847
1965	194,303,000	193,526,000	1914	- - -	99,117,567	. . .	. . .	24	60,963,309
1964	191,889,000	191,141,000	1913	- - -	97,226,814	. . .	. . .	23	58,156,740
1963	189,242,000	188,483,000	1912	- - -	95,331,300	. . .	. . .	22	54,847,700
1962	186,538,000	185,771,000	1911	- - -	93,867,814	. . .	. . .	22	53,929,644
1961	183,691,000	182,992,000	1910	- - -	92,406,536	. . .	. . .	20	47,470,437
1960	179,933,000	179,323,175	1909	- - -	90,491,525	. . .	. . .	18	44,223,513
1959	177,264,000	176,513,000	1908	- - -	88,708,976	. . .	. . .	17	38,634,759
1958	174,141,000	173,320,000	1907	- - -	87,000,271	. . .	. . .	15	34,552,837
1957	171,274,000	170,371,000	1906	- - -	85,436,556	. . .	. . .	15	33,782,288
1956	168,221,000	167,306,000	1905	- - -	83,819,666	. . .	. . .	10	21,767,980
1955	165,275,000	164,308,000	1904	- - -	82,164,974	. . .	. . .	10	21,332,076
1954	162,391,000	161,164,000	1903	- - -	80,632,152	. . .	. . .	10	20,943,222
1953	159,565,000	158,242,000	1902	- - -	79,160,196	. . .	. . .	10	20,582,907
1952	156,954,000	155,687,000	1901	- - -	77,585,128	. . .	. . .	10	20,237,453
1951	154,287,000	153,310,000	1900	- - -	76,094,134	. . .	. . .	10	19,965,446

- - - Data not available.

... Category not applicable.

1/ Alaska included beginning 1959 and Hawaii, 1960.

2/ The District of Columbia is not included in "Number of States," but it is represented in all data shown for each year.

3/ Population projected from the 1990 Census.

SOURCE: Published and unpublished data from the U.S. Bureau of the Census; see text and table D.

Table 4-2. Estimated total population by specified Hispanic origin and estimated female population by age and specified Hispanic origin and by race for women of non-Hispanic origin: United States, 2001

[Populations estimated as of July 1]

Age	Hispanic					Non-Hispanic		
	Total	Mexican	Puerto Rican	Cuban	Other Hispanic 1/	Total 2/	White	Black
Total population	36,972,219	---	---	---	---	247,824,668	198,036,588	35,629,549
Female population								
15-44 years	8,872,357	---	---	---	---	52,800,344	40,652,518	8,566,914
10-14 years	1,645,512	---	---	---	---	8,539,686	6,413,270	1,617,050
15-19 years	1,503,868	---	---	---	---	8,340,113	6,337,392	1,477,675
15-17 years	892,070	---	---	---	---	5,000,420	3,803,604	890,470
18-19 years	611,798	---	---	---	---	3,339,693	2,533,788	587,205
20-24 years	1,580,956	---	---	---	---	8,038,274	6,056,019	1,421,177
25-29 years	1,622,931	---	---	---	---	7,710,278	5,762,492	1,313,060
30-34 years	1,540,556	---	---	---	---	8,719,969	6,686,569	1,392,172
35-39 years	1,418,573	---	---	---	---	9,719,751	7,605,075	1,490,954
40-44 years	1,205,473	---	---	---	---	10,271,959	8,204,971	1,471,876
45-49 years	958,473	---	---	---	---	9,585,646	7,766,096	1,278,267

--- Data not available.

1/ Includes Central and South American and other and unknown Hispanic.

2/ Includes races other than white and black.

SOURCE: National Center for Health Statistics. Estimates of the July 1, 2001, United States population by age, sex, race, and Hispanic origin. Washington, DC: U.S. Census Bureau. 2002.

Table 4-3. Estimated population of the United States, by age, race, and sex: July 1, 2001

[Figures include Armed Forces stationed in the United States but excludes those stationed outside the United States]

Age	All races			White			Black			American Indian			Asian and Pacific Islander		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
All ages	284,796,887	139,813,108	144,983,779	232,351,696	114,659,071	117,692,625	37,196,779	17,710,410	19,486,369	3,054,311	1,524,362	1,529,949	12,194,101	5,919,265	6,274,836
Under 1	4,033,748	2,064,258	1,969,490	3,145,068	1,609,133	1,535,935	651,438	333,991	317,447	57,350	29,296	28,054	179,892	91,838	88,054
1-4 years	15,335,593	7,841,024	7,494,569	11,950,518	6,124,281	5,826,237	2,484,818	1,263,494	1,221,324	214,450	109,200	105,250	685,807	344,049	341,758
5-9 years	20,184,052	10,336,616	9,847,436	15,672,696	8,043,297	7,629,399	3,376,928	1,715,921	1,661,007	283,566	143,588	139,978	850,862	433,810	417,052
10-14 years	20,881,442	10,696,244	10,185,198	16,279,358	8,354,582	7,924,776	3,440,783	1,746,075	1,694,708	304,032	154,209	149,823	857,269	441,378	415,891
15-19 years	20,267,154	10,423,173	9,843,981	15,951,898	8,227,850	7,724,048	3,139,156	1,594,670	1,544,486	289,027	147,933	141,094	887,073	452,720	434,353
15-17 years	12,117,326	6,224,836	5,892,490	9,537,142	4,911,692	4,625,450	1,892,936	962,695	930,241	174,739	88,981	85,758	512,509	261,468	251,041
18-19 years	8,149,828	4,198,337	3,951,491	6,414,756	3,316,158	3,098,598	1,246,220	631,975	614,245	114,288	58,952	55,336	374,564	191,252	183,312
20-24 years	19,681,213	10,061,983	9,619,230	15,521,549	8,007,393	7,514,156	2,933,423	1,438,129	1,495,294	254,247	131,897	122,350	971,994	484,564	487,430
25-29 years	18,926,104	9,592,895	9,333,209	14,935,220	7,666,153	7,269,067	2,646,872	1,262,075	1,384,797	226,227	116,961	109,266	1,117,785	547,706	570,079
30-34 years	20,681,202	10,420,677	10,260,525	16,553,199	8,437,327	8,115,872	2,773,000	1,312,228	1,460,772	225,433	114,708	110,725	1,129,570	556,414	573,156
35-39 years	22,243,146	11,104,822	11,138,324	18,013,342	9,091,759	8,921,583	2,931,674	1,379,113	1,552,561	238,212	118,958	119,254	1,059,918	514,992	544,926
40-44 years	22,775,521	11,298,089	11,477,432	18,693,104	9,369,388	9,323,716	2,871,426	1,347,741	1,523,685	231,189	112,908	118,281	979,802	468,052	511,750
45-49 years	20,768,983	10,224,864	10,544,119	17,233,171	8,577,202	8,655,969	2,463,325	1,143,642	1,319,683	198,121	96,167	101,954	874,366	407,853	466,513
50-54 years	18,419,209	9,011,221	9,407,988	15,500,041	7,662,704	7,837,337	2,008,644	923,827	1,084,817	162,106	78,924	83,182	748,418	345,766	402,652
55-59 years	14,190,116	6,865,439	7,324,677	12,140,638	5,928,397	6,212,241	1,418,669	639,265	779,404	114,255	55,283	58,972	516,554	242,494	274,060
60-64 years	11,118,462	5,288,527	5,829,935	9,518,392	4,568,329	4,950,063	1,116,657	491,671	624,986	83,012	40,029	42,983	400,401	188,498	211,903
65-69 years	9,532,702	4,409,658	5,123,044	8,229,353	3,847,282	4,382,071	926,216	393,537	532,679	61,319	28,376	32,943	315,814	140,463	175,351
70-74 years	8,780,521	3,887,793	4,892,728	7,740,099	3,463,574	4,276,525	743,103	297,077	446,026	45,133	20,298	24,835	252,186	106,844	145,342
75-79 years	7,424,947	3,057,402	4,367,545	6,635,075	2,751,269	3,883,806	575,777	215,224	360,553	31,819	13,327	18,492	182,276	77,582	104,694
80-84 years	5,149,013	1,929,315	3,219,698	4,653,605	1,753,044	2,900,561	369,204	124,597	244,607	19,055	7,258	11,797	107,149	44,416	62,733
85 years +	4,403,759	1,299,108	3,104,651	3,985,370	1,176,107	2,809,263	325,666	88,133	237,533	15,758	5,042	10,716	76,965	29,826	47,139

SOURCE: National Center for Health Statistics. Estimates of the July 1, 2001, United States population by age, sex, race, and Hispanic origin. Washington, DC: U.S. Census Bureau. 2002.

Table 4-4. Estimated total population and female population aged 15-44 years: United States, each division, State, and territory: July 1, 2001

[Figures include Armed Forces stationed in each area and exclude those stationed outside the United States]

Division and States	Total	Female 15-44 years
United States	284,796,887	61,672,701
New England	---	---
Maine	---	---
New Hampshire	---	---
Vermont	---	---
Massachusetts	---	---
Rhode Island	---	---
Connecticut	---	---
Middle Atlantic	---	---
New York	---	---
New Jersey	---	---
Pennsylvania	---	---
East North Central	---	---
Ohio	---	---
Indiana	---	---
Illinois	---	---
Michigan	---	---
Wisconsin	---	---
West North Central	---	---
Minnesota	---	---
Iowa	---	---
Missouri	---	---
North Dakota	---	---
South Dakota	---	---
Nebraska	---	---
Kansas	---	---
South Atlantic	---	---
Delaware	---	---
Maryland	---	---
District of Columbia	---	---
Virginia	---	---
West Virginia	---	---
North Carolina	---	---
South Carolina	---	---
Georgia	---	---
Florida	---	---
East South Central	---	---
Kentucky	---	---
Tennessee	---	---
Alabama	---	---
Mississippi	---	---
West South Central	---	---
Arkansas	---	---
Louisiana	---	---
Oklahoma	---	---
Texas	---	---
Mountain	---	---
Montana	---	---
Idaho	---	---
Wyoming	---	---
Colorado	---	---
New Mexico	---	---
Arizona	---	---
Utah	---	---
Nevada	---	---
Pacific	---	---
Washington	---	---
Oregon	---	---
California	---	---
Alaska	---	---
Hawaii	---	---
Puerto Rico	---	---
Virgin Islands	---	---
Guam	---	---
American Samoa	---	---
Northern Marianas	---	---

--- Data not available.

SOURCE: National Center for Health Statistics. Estimates of the July 1, 2001, United States population by age, sex, race, and Hispanic origin. Washington, DC: U.S. Census Bureau. 2002.