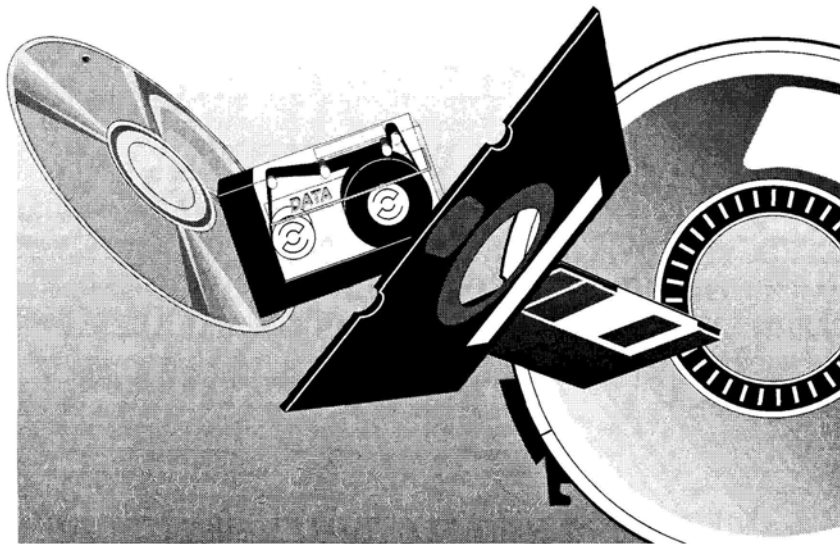


Public Use Data File Documentation

2003 Linked Birth/Infant Death
Birth Cohort Data Set

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



2003 Linked Birth/Infant Death Birth Cohort Data Set

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Introduction

This documentation is for the 2003 birth cohort linked birth/infant death data set (linked file). Previous birth cohort linked files were released for data years 1983-91. Beginning with 1995 data, the linked file was released in two different formats - period data and birth cohort data.

Period data - The numerator for the 2003 period linked file consists of all infant deaths occurring in 2003 linked to their corresponding birth certificates, whether the birth occurred in 2002 or 2003. The denominator for this data set is all births occurring in 2003.

Birth cohort data - The numerator of the 2003 birth cohort linked file consists of deaths to infants born in 2003 linked to their corresponding birth certificates, whether the death occurred in 2003 or 2004. The denominator for this data set is all births occurring in 2003.

For most purposes, differences between the birth cohort and period linked files are negligible. However, birth cohort files are preferred for multivariate and some other types of detailed analysis because they follow a given cohort of births for an entire year to ascertain their mortality experience. This is generally considered to be a more robust methodology than the period file, which is essentially cross-sectional in nature.

The 2003 birth cohort linked file includes several separate data files. The first file includes linked birth and death certificate data for all US infants born in 2003 who died before their first birthday - referred to as the numerator file. The second file contains information from the death certificate for all US infant death records which could not be linked to their corresponding birth certificates - referred to as the unlinked file. The third file is the 2003 NCHS natality file for the US with a few minor modifications - referred to as the denominator-plus file. These same three data files are also available for Puerto Rico, the Virgin Islands, and Guam.

For the denominator-plus file, selected variables from the numerator file have been added to the denominator file to facilitate processing. These variables include age at death (and recodes), underlying cause of death (and the 130-cause recode), manner of death, method of disposition, place of injury, autopsy, and record weight. These variables are the most widely used variables from the numerator file. When the number of variables required from the numerator file is limited, the denominator-plus file may be used by itself for ease of programming. Infant death identification numbers are also included, so that the same infant can be uniquely identified and matched between the numerator and denominator-plus files.

1989 and 2003 Revisions of the U.S. Standard Certificate of Live Birth and Certificate of Death

This data file includes data based on both the 1989 Revision of the U.S. Standard Certificate of Live Birth (unrevised) and the 2003 revision of the U.S. Standard Certificate of Live Birth (revised). The 2003 revision is described in detail elsewhere. (See the 2003 Revision website at: http://www.cdc.gov/nchs/vital_certs_rev.htm). Pennsylvania and Washington implemented the revised certificate in 2003. Where comparable, revised data are combined with data from the

remaining 48 states and the District of Columbia. (Revised data are denoted by “R;” unrevised data are denoted by “U” in the “Rev” column of the documentation.) Where data for the 1989 and 2003 certificate revisions are not comparable (e.g., educational attainment of the mother), unrevised and revised data are given in separate fields in the data file.

This file includes data for four states (California, Idaho, Montana, and New York), which implemented the 2003 revision of the U.S. Standard Certificate of Death in 2003. Data from all other areas are based on the 1989 revision. Most of the variables from the death certificate in this file are comparable despite changes to item wording and format in the 2003 revision. The 2003 revision is described in detail elsewhere. (See the 2003 Revision website at: http://www.cdc.gov/nchs/vital_certs_rev.htm).

Incomplete National Reporting - Using Reporting Flags

As a result of the delayed, phased transition to the 2003 U.S. Standard Certificate of Live Birth, the 2003 cohort linked file includes data for reporting areas that use the 2003 revision of the U.S. Standard Certificate of Live Birth (revised) and data for reporting areas that use the 1989 Standard Certificate of Live Birth (unrevised). Although many data items are comparable across certificate revisions and are available for the entire United States, many items have more limited reporting areas. Also, birth data are collected by place of occurrence but are typically tabulated by mother’s place of residence. Reporting flags were developed to help the user more readily identify reporting areas for items with less than national reporting. Reporting flags are included in the file to assist in accurately excluding records from non-reporting areas when tabulating data by mother’s place of residence. Reporting flags are available for most items on the file. Positions for reporting flags are noted along with each data item in the file layout. Reporting flags must be invoked to generate accurate numbers by residence for items which are not reported by all states. Where applicable, reporting flags are shown in the column “Reporting Flag Position” in the file layout. Reporting flag codes are “0” (item not reported), and 1 (item reported). When using these data, select reporting flag=1 to get valid and complete data for an item (see SAS code examples below).

Translating “blanks” - In the 2003 cohort linked file, for data items which are not common or comparable across certificate revisions, events to residents of a revised state occurring in an unrevised state, and events to residents in an unrevised state occurring in a revised state, are represented by “blanks.” Blanks should be treated as “unknowns” for tabulations.

The correct use of reporting flags and translation of blanks will result in an accurate tally of births and infant deaths for items with incomplete national reporting. For further information please contact us at births@cdc.gov or (301)458-4111.

Example of SAS code using reporting flags (and translating blanks)

An example of SAS code that may be used to incorporate the correct use of reporting flags and the translation of blanks is shown below. This example is for the revised prenatal care item. Prenatal care data based on the revised certificate are not considered comparable to data based on the unrevised certificate, and are shown separately. Accordingly, use of the reporting flag for this

item will produce 2003 data for the month prenatal care began for the two revised states which had implemented the revised certificate by January 1st 2003.

Sample SAS program

```
01 DATA work;
02     INFILE 'c:USnum.dat' LRECL=1259;
03     INPUT
04         restatus 138
05         precare 245-246
06         f_mpcb 668;
07
08     /*Exclude foreign residents*/
09     IF restatus NE 4;
10     /*Select reporting area*/
11     IF f_mpcb=1;
12     /*Convert blanks to unknown*/
13     IF precare=. THEN precare=99;
14
15 PROC FREQ;
16     TABLE precare;
17 RUN;
```

In this example, “restatus” is used to exclude births to foreign residents (this is standard practice for all NCHS tabulations). Also in this example, blanks are represented by numeric values SAS code = (.). However, for some items in the file, e.g., obstetric procedures, blanks are represented by character values for which the SAS code is empty single quotes (‘ ’).

Alternatives to the use of reporting flags - The use of reporting flags provides a relatively quick, accurate way to select records for all areas reporting comparable data for a given item in a particular year. However, should a limited reporting area be needed, specific state(s) of residence may also be selected, or unselected. This approach may be useful, for example, in trend analysis where reporting areas have changed over time. See Table A in the “Natality Technical Appendix” for state-specific information on reporting areas. This approach may also be used to limit the reporting area to only states reporting multiple or single race data (see multiple race section below).

Example of SAS code using state of residence (and translating blanks)

```
01 DATA work;
02     INFILE 'c:USnum.dat' LRECL=1259;
03     INPUT
04         restatus 138
05         xmrstate $ 107-108
06         precare 245-246;
07
08     /*Exclude foreign residents*/
09     IF restatus NE 4;
10     /*Select reporting area*/
11     IF xmrstate in ('ID', 'KY', 'NY', 'PA', 'SC', 'TN', 'WA');
```

```

12         /*Convert blanks to unknown*/
13         IF precare=. THEN precare=99;
14
15     PROC FREQ;
16         TABLE precare;
17     RUN;

```

Single, Multiple, and Bridged Race

In 1997, the Office of Management and Budget (OMB) issued revised standards requiring Federal collection programs to allow respondents to select *one or more race categories*. Beginning with 2003 data, six areas reported multiple race data for all or part of the year: California, Hawaii, Pennsylvania, Utah, and Washington (full year); and Ohio (partial year). For the 2003 cohort linked file, complete data for 2003 births is available from 5 states: California, Hawaii, Pennsylvania, Utah, and Washington.

In 2003, multiple race data was reported on the death certificates of California, Hawaii, Idaho, Maine, Montana, New York, and Wisconsin. In order to provide uniformity and comparability of the data before all or most of the data are available in the new multiple-race format, it was necessary to “bridge” the responses of those for whom more than one race was reported (multiple race) to one, single race. See the “Technical Notes” of “Births: Final Data for 2003” and “Deaths: Final Data for 2003” which are included on this CD ROM for more information.

Weighting

Beginning with the 1995 linked file, a weight was added to the linked numerator file to correct in part for biases in percent of records linked by major characteristics (see section below on Percent of records linked). The number of infant deaths in the linked file are weighted to equal the sum of the linked plus unlinked infant deaths by age at death and state. The formula for computing the weights is as follows:

$$\frac{\text{number of linked infant deaths} + \text{number of unlinked infant deaths}}{\text{number of linked infant deaths}}$$

A separate weight is computed for each state of residence of birth and each age at death category (<7 days, 7-27 days, 28 days-1 year). Thus, weights are 1.0 for states which link all of their infant deaths. Weights are not computed for the Puerto Rico, Virgin Islands, and Guam file.

Birthweight

Beginning with the 1995 linked file, an imputation for not-stated birthweight was added to the data set, to reduce potential bias in the computation of birthweight-specific infant mortality rates. Basically, if birthweight is not stated and the period of gestation is known, birthweight is assigned the value from the previous record with the same period of gestation, race, sex, and plurality. Imputed values are flagged. The addition of this imputation has reduced the percent of not-stated responses for birthweight from 4.43 to 0.59, and from 0.09 to 0.01 in the denominator file, thus

greatly reducing (but not eliminating) the potential for underestimation when computing birthweight-specific infant mortality rates.

Methodology

The methodology used to create the national file of linked birth and infant death records takes advantage of two existing data sources:

1. State linked files for the identification of linked birth and infant death certificates; and
2. NCHS natality and mortality computerized statistical files, the source of computer records for the two linked certificates.

Virtually all states routinely link infant death certificates to their corresponding birth certificates for legal and statistical purposes. When the birth and death of an infant occur in different states, copies of the records are exchanged by the state of death and state of birth in order to effect a link. In addition, if a third state is identified as the state of residence at the time of birth or death, that state is also sent a copy of the appropriate certificate by the state where the birth or death occurred.

The NCHS natality and mortality files, produced annually, include statistical data from birth and death certificates that are provided to NCHS by states under the Vital Statistics Cooperative Program (VSCP). The data have been coded according to uniform coding specifications, have passed rigid quality control standards, have been edited and reviewed, and are the basis for official U.S. birth and death statistics.

To initiate processing, NCHS obtained matching birth certificate numbers from states for all infant deaths that occurred in their jurisdiction. We used this information to extract final, edited mortality and natality data from the NCHS natality and mortality statistical files. Individual birth and death records were selected from their respective files and linked into a single statistical record, thereby establishing a national linked record file.

After the initial linkage, NCHS returned to the states where the death occurred, computer lists of unlinked infant death certificates for follow up linking. If the birth occurred in a state different from the state of death, the state of birth identified on the death certificate was contacted to obtain the linking birth certificate. State additions and corrections were incorporated, and a final, national linked file was produced. Characteristics of the natality and mortality data from which the linked file is constructed are described in detail in the Technical Appendix and Final Reports included in this document.

Characteristics of Unlinked File

For the 2003 cohort linked file 1.0% of all infant death records could not be linked to their corresponding birth certificates. Unlinked records are included in a separate data file in this data set. The unlinked record file uses the same record layout as the numerator file of linked birth and

infant death records. However, except as noted below, locations reserved for information from the matching birth certificate are blank since no matching birth certificate could be found for these records. The sex field contains the sex of infant as reported on the death certificate, rather than the sex of infant from the birth certificate, which is not available. The race field contains the race of the decedent as reported on the death certificate rather than the race of mother as reported on the birth certificate as is the case with the linked record file. The race of mother on the birth certificate is generally considered to be more accurate than the race information from the death certificate (see section on Race and Hispanic origin in "Deaths: Final Data for 2003" included in this documentation). Also, date of birth as reported on the death certificate is used to generate age at death. This information is used in place of date of birth from the birth certificate, which is not available. Documentation table 6 shows counts of unlinked records by race and age at death for each state of residence. The user is cautioned in using table 6 that the race and residence items are based on information reported on the death certificate, whereas tables 1-5 present data from the linked file in which the race and residence items are based on information reported on the birth certificate.

Percent of Records Linked

The 2003 cohort linked file for the 50 States and D.C. includes 27,843 linked infant death records and 289 unlinked infant death records. The linked file is weighted to the sum of linked plus unlinked records, thus the total number of weighted infant deaths by place of occurrence is 28,132. While the overall percent linked for infant deaths in the 2003 cohort file is 99.0%, there are differences in percent linked by certain variables. These differences have important implications for how the data is analyzed.

Table 1 below shows the percent of infant deaths linked by state of occurrence of death. While many states link all of their infant deaths, linkage rates for some states are below the national average. Note in particular the percent linked for California (97.5), Louisiana (95.7), New Jersey (96.9), and Texas (97.1). When a high percentage of deaths remain unlinked, unweighted infant mortality rates computed for these states are underestimated. It is for this reason that weights were added to the file to correct for biases in the data due to poor data linkage for particular states.

In general, a slightly higher percentage of postneonatal (28 days to under 1 year) than neonatal (less than 28 days) deaths were linked (99.4 and 98.7, respectively.) While the weighting protocol has been designed to correct for possible bias due to variations in match rates by characteristics, no statistical method can correct perfectly for data limitations. Therefore, variations in the percent of records linked should be taken into consideration when comparing infant mortality rates by detailed characteristics.

Confidentiality

To minimize the risk of disclosure of individual or institutional information NCHS public-use data files do not contain the actual day of the birth or the dates of birth of the mother or father. Also, for the linked files, only counties and cities of a population size of 250,000 or more are separately identified.

Table 1. Percent of infant deaths linked by state of occurrence of death: United States, 2003 cohort linked file			
United States	99.0	Nebraska	100.0
Alabama	100.0	Nevada	100.0
Alaska	100.0	New Hampshire	100.0
Arizona	99.2	New Jersey	96.9
Arkansas	99.7	New Mexico	98.7
California	97.5	New York State	98.6
Colorado	100.0	New York City	99.5
Connecticut	100.0	North Carolina	99.8
Delaware	100.0	North Dakota	100.0
District of Columbia	98.5	Ohio	99.3
Florida	99.9	Oklahoma	97.9
Georgia	100.0	Oregon	99.7
Hawaii	100.0	Pennsylvania	99.5
Idaho	99.2	Rhode Island	100.0
Illinois	97.9	South Carolina	100.0
Indiana	99.1	South Dakota	100.0
Iowa	100.0	Tennessee	100.0
Kansas	99.5	Texas	97.1
Kentucky	99.7	Utah	100.0
Louisiana	95.7	Vermont	100.0
Maine	100.0	Virginia	100.0
Maryland	100.0	Washington	98.8
Massachusetts	98.5	West Virginia	100.0
Michigan	100.0	Wisconsin	100.0
Minnesota	100.0	Wyoming	100.0
Mississippi	99.8	Puerto Rico	99.8
Missouri	100.0	Virgin Islands	100.0
Montana	98.4	Guam	100.0

Geographic classification

Geographic codes in this data set are based on the results of the 2000 census, and only identify areas with a population size of 250,000 or more. Users should refer to the geographic code outline in this document for the list of available areas and codes.

For events to be included in the linked file, both the birth and death must occur inside the 50 states and D.C. in the case of the 50 states and D.C. file; or in Puerto Rico, the Virgin Islands or Guam in the case of the Puerto Rico, Virgin Islands and Guam file. In tabulations of linked data and denominator data events occurring in each of the respective areas to nonresidents are included in tabulations that are by place of occurrence, and excluded from tabulations by place of residence. These exclusions are based on the usual place of residence of the mother. This item is contained in both the denominator file and the birth section of the numerator (linked) file. Nonresidents are identified by a code 4 in location 138 of these files (see file layout).

Metropolitan statistical areas - Metropolitan statistical areas in this file are based the 1994 Office of Management and Budget (OMB) definition effective July 1, 1994. This definition has been used to define metropolitan statistical areas for natality files since 1994. A listing of the Metropolitan Statistical Areas (MSA's), Primary Metropolitan Statistical Areas (PMSA's), and New England County Metropolitan Areas (NECMA's) is included in this documentation. The 18 Consolidated Metropolitan Statistical Areas (CMSA's) are also included.

Demographic and Medical Classification

The documents listed below describe in detail the procedures employed for demographic classification on both the birth and death records and medical classification on death records. These documents, while not absolutely essential to the proper interpretation of the data for a number of general applications, should nevertheless be studied carefully prior to any detailed analysis of demographic or medical data variables. In particular, there are a number of exceptions to the ICD rules in multiple cause-of-death coding which, if not treated properly, may result in faulty analysis of the data. Volumes 1, 2 and 3 of the ICD-10 may be purchased from the World Health Organization (WHO) Publication Center USA, 49 Sheridan Avenue, Albany, New York, 12210 (<http://www.who.int/whosis/icd10/index.html>). Many of the instruction manuals listed below are available electronically on the NCHS website at: <http://www.cdc.gov/nchs/about/major/dvs/im.htm>. In addition, users who do not already have access to these documents may request them from the Chief, Mortality Medical Classification Branch, Division of Vital Statistics, National Center for Health Statistics, P.O. Box 12214, Research Triangle Park, North Carolina 27709. The technical appendix for natality and the mortality final report for 2003 included in this document also provide information on the source of data, coding procedures, quality of the data, etc.

- A. National Center for Health Statistics. Vital statistics, Instructions for Classifying the Underlying Cause-of-Death, 2007. NCHS Instruction Manual, Part 2a. Hyattsville, Maryland: Public Health Service.
- B. National Center for Health Statistics. Vital statistics, Instructions for Classifying Multiple Cause-of-Death, 2007. NCHS Instruction Manual, Part 2b. Hyattsville, Maryland: Public Health Service.
- C. National Center for Health Statistics. Vital statistics, ICD-10 ACME Decision Tables for Classifying Underlying Causes-of-Death, 2007. NCHS Instruction Manual, Part 2c. Hyattsville, Maryland: Public Health Service.
- D. National Center for Health Statistics. Specifications for U.S. Standard Certificate of Birth – 2003 Revision. (replaces NCHS Instruction Manual, Part 3a). Available at: <http://www.cdc.gov/nchs/about/major/dvs/im.htm>.
- E. National Center for Health Statistics. Specifications for U.S. Standard Certificate of Death – 2003 Revision. (replaces NCHS Instruction Manual, Part 4). Available at: <http://www.cdc.gov/nchs/about/major/dvs/im.htm>.

- F. National Center for Health Statistics. Vital statistics, Computer Edits for Natality Data, Effective 1993. NCHS Instruction Manual Part 12. Hyattsville, Maryland: Public Health Service.
- G. National Center for Health Statistics. Vital statistics, Computer Edits for Mortality Data, Effective 2007. NCHS Instruction Manual Part 11. Hyattsville, Maryland: Public Health Service.

Also see: http://www.cdc.gov/nchs/vital_certs_rev.htm for the most recent information about revised certificates.

Underlying Cause of Death Data

Mortality statistics by cause of death are compiled from entries on the medical certification portion of the death certificate. The U.S. Standard Certificate of Death is shown in the Mortality Technical Appendix which is included in this documentation. Causes of death include “all those diseases, morbid conditions or injuries which either resulted in or contributed to death and the circumstances of the accident or violence which produced these injuries”. The medical certification of death is divided into two sections. In Part I, the physician is asked to provide the causal chain of morbid conditions that led to death, beginning with the condition most proximate to death on line (a) and working backwards to the initiating condition. The lines (a) through (d) in Part I are connected by the phrase “due to, or as a consequence of.” They were designed to encourage the physician to provide the causally related sequence of medical conditions that resulted in death. Thus, the condition on line (a) should be due to the condition on line (b), and the condition on line (b) should be a consequence of the condition on line (c), etc., until the full sequence is described back to the originating or initiating condition. If only one step in the chain of morbid events is recorded, a single entry on line (a) is adequate. Part I of the medical certification is designed to facilitate the selection of the underlying cause of death when two or more causes are recorded on the certificate. The underlying cause of death is defined by the WHO in the ICD-10 as “(a) the disease or injury which initiated the chain of morbid events leading directly to death, or (b) the circumstances of the accident or violence that produced the fatal injury” and is generally considered the most useful cause from a public health standpoint. Part II of the cause-of-death section of the death certificate solicits other conditions that the certifier believed contributed to death, but were not in the causal chain. While some details of the death certificate vary by state, all states use the same general format for medical certification outlined in the U.S. Standard Certificate. The U.S. Standard Certificate, in turn, closely follows the format recommended by the WHO.

If the death certificate is properly completed, the disease or condition listed on the lowest used line in Part I is usually accepted as the underlying cause of death. This is an application of “The General Principle.” The General Principle is applied unless it is highly improbable that the condition on the lowest line used could have given rise to all of the diseases or conditions listed above it. In some cases, the sequence of morbid events entered on the death certificate is not specified correctly. A variety of errors may occur in completing the medical certification of death. Common problems include the following: The causal chain may be listed in reverse order; the distinction between Part I and Part II may have been ignored so that the causal sequence in Part I is

simply extended unbroken into Part II; or the reported underlying cause is unlikely, in an etiological sense, to have caused the condition listed above it. In addition, sometimes the certifier attributes the death to uninformative causes such as cardiac arrest or pulmonary arrest.

To resolve the problems of incorrect or implausible cause-of-death statements, the WHO designed standardized rules to select an underlying cause of death from the information available on the death certificate that is most informative from a public health perspective. The rules for the Tenth Revision as updated by WHO since the publication of ICD-10 are described in NCHS instruction manual Part 2A. Coding rules beyond the General Principle are invoked if the cause-of-death section is completed incorrectly or if their application can improve the specificity and characterization of the cause of death in a manner consistent with the ICD. The rules are applied in two steps: selection of a tentative underlying cause of death, and modification of the tentative underlying cause in view of the other conditions reported on the certificate in either Part I or Part II. Modification involves several considerations by the medical coder: determining whether conditions in Part II could have given rise to the underlying cause, giving preference to specific terms over generalized terms, and creating linkages of conditions that are consistent with the terminology of the ICD.

For a given death, the underlying cause is selected from the condition or conditions recorded by the certifier in the cause-of-death section of the death certificate. NCHS is bound by international agreement to make the selection of the underlying cause through the use of the ICD-10 classification structure, and the selection and modification rules contained in this revision of the ICD. These rules are contained in a computer software program called ACME (Automated Classification of Medical Entities). ACME does exactly what a coder would do to select the underlying cause of death. The ACME program has been used for final mortality data since 1968.

The WHO selection rules take into account the certifier's ordering of conditions and their causal relationships to systematically identify the underlying cause of death. The intent of these rules is to improve the usefulness of mortality statistics by giving preference to certain classification categories over others and consolidating two or more conditions on the certificate into a single classification category.

In addition to changes due to the implementation of a new ICD revision, rules for coding a cause of death may occasionally require modification at other times, when evidence suggests that such modifications will improve the quality of cause-of-death data. These changes may affect comparability of data between years for select causes of death. For example, the large decrease in Birth trauma (ICD-10 codes P10-P15) and subsequent increase in Neonatal hemorrhage (ICD-10 codes P50-P52, P54), from 2002-2003, is primarily due to a coding rule change which resulted in deaths that would have previously been assigned to Intracranial laceration and hemorrhage due to birth injury (ICD-10 code P10) instead being assigned to Intracranial non-traumatic hemorrhage of fetus and newborn (ICD-10 code P52). Also, the large increase from 2002-2003 in Persistent fetal circulation (ICD-10 code P29.3) is the result of a change introduced by WHO in 2003, whereby "Pulmonary hypertension (persistent) of newborn" was added to the terms included under Persistent fetal circulation. Previously, the ICD documentation did not clearly indicate if these records should be assigned to Neonatal hypertension (ICD-10 code P29.2) or Primary pulmonary hypertension (ICD-10 code I27.0).

Multiple Cause of Death Data

The limitations of the underlying cause concept and the need for more comprehensive data suggested the need for coding and tabulating all conditions listed on the death certificate. Coding all listed conditions on the death certificate was designed with two objectives in mind. First, to facilitate studies of the relationships among conditions reported on the death certificate, which require presenting each condition and its location on the death certificate in the exact manner given by the certifier. Secondly, the coding needed to be carried out in a manner by which the underlying cause-of-death could be assigned using the WHO coding rules. Thus, the approach in developing multiple cause data was to provide two fields: 1) entity axis and 2) record axis. For entity axis, NCHS suspends the provisions of the ICD that create linkages between conditions for the purpose of coding each individual condition, or entity, with minimum regard to other conditions present on the death certificate.

Record axis is designed for the generation of person-based multiple cause statistics. Person-based analysis requires that each condition be coded within the context of every other condition on the same death certificate and modified or linked to such conditions as provided by ICD-10. By definition, the entity data cannot meet this requirement since the linkage provisions modify the character and placement of the information originally recorded by the certifier. Essentially, the axis of the classification has been converted from an entity basis to a record (or person) basis. The record axis codes are assigned in terms of the set of codes that best describe the overall medical certification portion of the death certificate.

This translation is accomplished by a computer system called TRANSAX (Translation of Axis). TRANSAX selectively uses the traditional linkage and modification rules for mortality coding. Underlying cause linkages which simply prefer one code over another for purposes of underlying cause selection are not included. Each entity code on the record is examined and modified or deleted as necessary to create a set of codes that are free of contradictions and are the most precise within the constraints of ICD-10 and medical information on the record. Repetitive codes are deleted. The process may 1) combine two entity axis categories together to a new category thereby eliminating a contradiction or standardizing the data; or 2) eliminate one category in favor of another to promote specificity of the data or resolve contradictions. The following examples from ICD-10 illustrate the effect of this translation:

- Case 1: When reported on the same record as separate entities, cirrhosis of liver and alcoholism are coded to K74.6 (Other and unspecified cirrhosis of liver) and F10.2 (Mental and behavioral disorders due to use of alcohol; dependence syndrome), respectively. Tabulation of records with K74.6 would imply that such records had no mention of alcohol. A preferable code would be K70.3 (Alcoholic cirrhosis of liver) in lieu of both K74.6 and F10.2.
- Case 2: If “gastric ulcer” and “bleeding gastric ulcer” are reported on a record they are coded to K25.9 (Gastric ulcer, unspecified as acute or chronic, without mention of hemorrhage or perforation) and K25.4 (Gastric ulcer, chronic or unspecified with

hemorrhage), respectively. A more concise code is K25.4 which shows both the gastric ulcer and the bleeding.

Entity Axis Codes

The original conditions coded for selection of the underlying cause-of-death are reformatted and edited prior to creating the public-use data file. The following paragraphs describe the format and application of entity axis data.

1. Format. Each entity-axis code is displayed as an overall seven byte code with subcomponents as follows:

1. Line indicator: The first byte represents the line of the death certificate on which the code appears. Six lines (1-6) are allowable with the fourth and fifth denoting one or two written in “due to”s beyond the three lines provided in Part I of the U.S. standard death certificate. Line “6” represents Part II of the death certificate.
2. Position indicator: The next byte indicates the position of the code on the line, i.e., it is the first (1), second (2), third (3) eighth (8) code on the line.
3. Cause category: The next four bytes represent the ICD-10 cause code.
4. The last byte is blank.

A maximum of 20 of these seven byte codes are captured on a record for multiple cause purposes. This may consist of a maximum of 8 codes on any given line with up to 20 codes distributed across three or more lines depending on where the subject conditions are located on the certificate. Codes may be omitted from one or more lines, e.g., line 1 with one or more codes, line 2 with no codes, line 3 with one or more codes.

In writing out these codes, they are ordered as follows: line 1 first code, line 1 second code, etc. ----
- line 2 first code, line 2 second code, etc. ----- line 3 ---- line 4 ----- line 5 ----- line 6. Any space remaining in the field is left blank. The specifics of locations are contained in the record layout given later in this document.

2. Edit. The original conditions are edited to remove invalid codes, reverify the coding of certain rare causes of death, and assure age/cause and sex/cause compatibility. Detailed information relating to the edit criteria and the sets of cause codes which are valid to underlying cause coding and multiple cause coding are provided in NCHS Instruction Manual Part 11.

3. Entity Axis Applications. The entity axis multiple cause data file is appropriate for analyses that require that each condition be coded as a stand alone entity without linkage to other conditions and/or require information on the placement of such conditions in the death certificate. Within this framework, the entity data are appropriate to examine relationships among conditions and the validity of traditional assumptions in underlying cause selection. Additionally, the entity data

provide in certain categories a more detailed code assignment that could be excluded in creating record axis data. Where such detail is needed for a study, the user should use entity data. Finally, the researcher may not wish to be bound by the assumptions used in the axis translation process.

The main limitation of entity axis data is that it does not necessarily reflect the best code for a condition when considered within the context of the medical certification as a whole. As a result, certain entity codes can be misleading or even contradict other codes in the record. For example, category K80.2 is titled "Calculus of gallbladder without cholecystitis." Within the framework of entity codes this is interpreted to mean that the codable entity itself contained no mention of cholecystitis rather than that cholecystitis was not mentioned anywhere on the record. Tabulation of records with a "K80.2" as a count of persons having Calculus of gallbladder without cholecystitis would therefore be erroneous. This illustrates the fact that under entity coding the ICD-10 titles cannot be taken literally. The user should study the rules for entity coding as they relate to his/her research prior to use of entity data. The user is further cautioned that the inclusion notes in ICD-10 that relate to modifying and combining categories are seldom applicable to entity coding (except where provided NCHS Instruction Manual Part 2b).

In tabulating the entity axis data, one may count codes with an individual code representing the number of times the condition(s) appears in the file. In this kind of tabulation of morbid conditions, the counts among categories may be added together to produce counts for groups of codes. Alternatively, subject to the limitations given above, one may count persons having mention of the disease represented by a code or codes. In this instance it is not correct to add counts for individual codes to create person counts for groups of codes. Since more than one code in the researcher's interest may appear together on the certificate, totaling must account for higher order interactions among codes. Up to 20 codes may be assigned on a record; therefore, a 20-way interaction is theoretically possible. All totaling must be based on mention of one or more of the categories under investigation.

Record Axis Codes

The following paragraphs describe the format and application of record-axis data. Part 2f of the Instruction Manual Series (ICD-10 TRANSAX Disease Reference Tables for classifying Multiple Causes-of-Death) describes the TRANSAX process for creating record axis data from entity axis data.

1. Format. Each record (or person) axis code is displayed in five bytes. Location information is not relevant. The Code consists of the following components:

1. Cause category: The first four bytes represent the ICD-10 cause code.
2. The last byte is blank.

Again, a maximum of 20 codes are captured on a record for multiple cause purposes. The codes are written in a 100-byte field in ascending code number (5 bytes) order with any unused bytes left blank.

2. Edit. The record axis codes are edited for rare causes and age/cause and sex/cause compatibility. Likewise, individual code validity is checked. The valid code set for record axis coding is the same as that for entity coding.

3. Record Axis Applications. The record axis multiple cause data are the basis for NCHS core multiple cause tabulations. Location of codes is not relevant to this data, and conditions have been linked into the most meaningful categories for the certification. The most immediate consequence for the user is that the codes on the record already represent mention of a disease assignable to that particular ICD-10 category. This is in contrast to the entity code which is assigned each time such a disease is reported on different lines of the certification. Secondly, the linkage implies that within the constraints of ICD-10 the most meaningful code has been assigned. The translation process creates for the user a data file that is edited for contradictions, duplicate codes, and imprecisions. In contrast to entity axis data, record axis data are classified in a manner comparable to underlying cause of death classification thereby facilitating joint analysis of these variables. A potential disadvantage of record axis data is that some detail is sacrificed in a number of the linkages.

The user can take the record axis codes as literally representing the information conveyed in ICD-10 category titles. While knowledge of the rules for combining and linking and coding conditions is useful, it is not a prerequisite to meaningful analysis of the data as long as one is willing to accept the assumptions of the axis translation process. The user is cautioned, however, that due to special rules in mortality coding, not all linkage notes in ICD-10 are used. (NCHS Instruction Manual Part 2f).

The user should proceed with caution in using record axis data to count conditions as opposed to people with conditions, since linkages have been invoked and duplicate codes have been eliminated. As with entity data, person-based tabulations that combine individual cause categories must take into account the possible interaction of up to 20 codes on a single certificate.

Additional Information

In using the NCHS multiple cause data files, the user is urged to review the information in this document and its references. The instructional material does change from year to year and ICD revision to ICD revision. The user is cautioned that coding of specific ICD-10 categories should be checked in the appropriate instruction manual. What may appear on the surface to be the correct code by ICD-10 may in fact not be correct as given in the instruction manuals.

If on the surface it is not obvious whether entity axis or record axis data should be employed in a given application, detailed examination of NCHS Instruction Manual Part 2f and its attachments will probably provide the necessary information to make a decision. It allows the user to determine the extent of the trade-offs between the two sets of data in terms of specific categories and the assumption of axis translation. In certain situations, a combination of entity and record axis data may be the more appropriate alternative.

2003 Linked Birth/Infant Death Birth Cohort Data Set

I. Numerator File:

United States

A. Record count:	27,843
B. Record length:	1,142
C. Data counts:	a. By occurrence: 27,843 b. By residence: 27,826 c. To foreign residents: 17

Territories

A. Record count:	525
B. Record length:	1,142

II. Denominator File:

United States

A. Record count:	4,096,151
B. Record length:	783
C. Data counts:	a. By occurrence: 4,096,151 b. By residence: 4,090,007 c. To foreign residents: 6,144

Territories

A. Record count:	55,709
B. Record length:	751

III. Unlinked File:

United States

A. Record count:	289
B. Record length:	1,142
C. Data counts:	a. By occurrence: 289 b. By residence: 285 c. To foreign residents: 4

Territories

A. Record count:	1
B. Record length:	1,142

Linked 2003 Cohort Data Elements and Locations

Data Items	Denominator- PlusFile	Numerator File		Unlinked File
		Birth	Death	
1. General				
a. Match Status	751	751		
b. Infant Death Number	10-14	10-14		
c. Year of birth	15-18	15-18	--	15-18 *
d. Year of death	--	--	1071-74	1071-74
e. Record type	137	137	--	--
f. Resident status	138	138	1034	1034
g. Record weight	776-83	--	776-83	--
2. Occurrence				
a. State	30-31	30-31	1035-36	1035-36
b. Expanded state	32-33	32-33	1040-41	1-40-41
c. County	37-39	37-39	1037-39	1037-39
d. Population size	40	40	1042	1042
3. Residence				
a. State	109-10	109-10	1043-44	1043-44
b. Expanded state	107-8	107-8	1059-60	1059-60
c. County	114-16	114-16	1049-51	1049-51
d. Population size - County	132	132	1065	1065
e. Place(city)	120-24	120-24	1052-56	1052-56
f. Population size - City	133	133	1057	1057
g. Metropolitan/Nonmetropolitan county	135	135	1058	1058
h. CMSA	125-6	125-6	1067-8	1067-8
i. PMSA/MSA	127-30	127-30	1061-4	1061-4
j. Population of statistical area	131	131	--	--
4. Infant				
a. Age at death	755-60	--	755-60	755-60+
b. Race	--	--	--	139-44*
c. Sex	436	436	--	436*
d. Gestation	451-57	451-57	--	--
e. Birthweight	463-66	463-66	--	--
f. Plurality	423	423	--	--
g. Apgar score	415-17	415-17	--	--
h. Day of week of birth/death	29	29	1070	1070
i. Month of birth/death	19-20	19-20	1141-42	1141-42
5. Mother				
a. Age	89-93	89-93	--	--
b. Race	139-44	139-44	--	--
c. Education	155-8	155-8	--	--
d. Marital status	153	153	--	--
e. Place of birth	96-97,100	96-97,100	--	--
f. Hispanic origin	148-49	148-49	--	--
6. Father				
a. Age	184-87	184-87	--	--
b. Race	188-91, 199-200	188-91, 199-200	--	--
c. Hispanic origin	195-96	195-96	--	--
7. Pregnancy items				
a. Month prenatal care began	256-59	256-59	--	--
b. Number of prenatal visits	270-73	270-73	--	--
c. Total birth order	215-17	215-17	--	--
d. Live birth order	210-12	210-12	--	--
e. Born alive, now living	204-5	204-5	--	--
f. Born alive, now dead	206-7	206-7	--	--
g. Other terminations	208-9	208-9	--	--
h. Date of last live birth month	220-21	220-21	--	--

i.	Date of last live birth year	222-25	222-25	--	--
8.	Medical and Health Data				
a.	Method of delivery	395-401	395-401	--	--
b.	Medical risk factors	328-44	328-44	--	--
c.	Other risk factors				
	Tobacco	282-94	282-94	--	--
	Alcohol	295-98	295-98	--	--
	Weight gain during pregnancy	276-78	276-78	--	--
d.	Obstetric procedures	355-61	355-61	--	--
e.	Complications of labor and delivery	374-89	374-89	--	--
f.	Abnormal conditions of the newborn	483-91	483-91	--	--
g.	Congenital anomalies	504-25	504-25	--	--
h.	Underlying cause of death	767-70 --	767-70	767-70	
i.	130 Infant cause recode	772-74 --	772-74	772-74	
j.	Multiple conditions	--	--	786-1031	786-1031
9.	Other items				
a.	Residence Reporting Flags	569-773	569-773		
b.	Late record flag	9	9	--	--
c.	Place of birth	42,59	42,59	--	--
d.	Attendant at birth	408	408	--	--
e.	Place of death and decedent's status	--	--	1069	1069
f.	Place of injury	765	--	765	765
g.	Manner of death	761	--	761	761
h.	Method of Disposition	762	--	762	762
i.	Autopsy	763	--	763	763

* For the unlinked file, these items are from the death certificate.

+ For the unlinked file, date of birth as reported on the death certificate is used to generate age at death.

Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
1	6	FILLER	Filler			Blank	
7	1	REVISION	Revision		U,R	A S	State used the 2003 version of the US Standard Birth Certificate (Revised) State used the 1989 version of the US Standard Birth Certificate (Unrevised)
8	1	FILLER	Filler			Blank	
9	1	LATEREC	Late Record Flag		U,R	0 1	Not late record Late record
10-14	5	IDNUMBER	Infant Death Number This number uniquely identifies the same infant in the numerator and denominator-plus files.				
15-18	4	DOB_YY	Birth Year		U,R	2002 2003	2002 2003
19-20	2	DOB_MM	Birth Month		U,R	01 02 03 04 05 06 07 08 09 10 11 12	January February March April May June July August September October November December
21-28	8	FILLER	Filler			Blank	
29	1	DOB_WK	Weekday		U,R	1 2 3 4 5 6 7	Sunday Monday Tuesday Wednesday Thursday Friday Saturday

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U Includes data based on the 1989 Revision of the U.S. Certificate of Live Birth; excludes data based on the 2003 Revision.
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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
30-31	2	OSTATE	Occurrence FIPS State United States		U,R	AK AL AR AZ CA CO CT DE DC FL GA HI ID IL IN IA KS KY LA MA MD ME MI MN MO MS MT NC ND NE NH NJ NM NV NY OH OK OR	Alaska Alabama Arkansas Arizona California Colorado Connecticut Delaware District of Columbia Florida Georgia Hawaii Idaho Illinois Indiana Iowa Kansas Kentucky Louisiana Massachusetts Maryland Maine Michigan Minnesota Missouri Mississippi Montana North Carolina North Dakota Nebraska New Hampshire New Jersey New Mexico Nevada New York Ohio Oklahoma Oregon

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
						PA	Pennsylvania
						RI	Rhode Island
						SC	South Carolina
						SD	South Dakota
						TN	Tennessee
						TX	Texas
						UT	Utah
						VA	Virginia
						VT	Vermont
						WA	Washington
						WI	Wisconsin
						WV	West Virginia
						WY	Wyoming
			Possessions			GU	Guam
						PR	Puerto Rico
						VI	Virgin Islands
32-33	2	XOSTATE	Expanded Occurrence FIPS State		U,R		
			United States			AK	Alaska
						AL	Alabama
						AR	Arkansas
						AZ	Arizona
						CA	California
						CO	Colorado
						CT	Connecticut
						DE	Delaware
						DC	District of Columbia
						FL	Florida
						GA	Georgia
						HI	Hawaii
						ID	Idaho
						IL	Illinois
						IN	Indiana
						IA	Iowa
						KS	Kansas
						KY	Kentucky
						LA	Louisiana
						MA	Massachusetts
						MD	Maryland

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
						ME	Maine
						MI	Michigan
						MN	Minnesota
						MO	Missouri
						MS	Mississippi
						MT	Montana
						NC	North Carolina
						ND	North Dakota
						NE	Nebraska
						NH	New Hampshire
						NJ	New Jersey
						NM	New Mexico
						NV	Nevada
						NY	New York
						OH	Ohio
						OK	Oklahoma
						OR	Oregon
						PA	Pennsylvania
						RI	Rhode Island
						SC	South Carolina
						SD	South Dakota
						TN	Tennessee
						TX	Texas
						UT	Utah
						VA	Virginia
						VT	Vermont
						WA	Washington
						WI	Wisconsin
						WV	West Virginia
						WY	Wyoming
						YC	New York City
			Possessions			GU	Guam
						PR	Puerto Rico
						VI	Virgin Islands
34-36	3	FILLER	Filler			Blank	
37-39	3	OCNTYFIPS	Occurrence FIPS County		U,R	000-nnn 999	County of Occurrence County with less than 250,000 population

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
40	1	OCNTYPOP	Occurrence County Pop		U,R	0 1 2 9	County of 1,000,000 or more County of 500,000 to 1,000,000 County of 250,000 to 500,000 County less than 250,000
41	1	FILLER	Filler			Blank	
42	1	UBFACIL	Birth Place		U,R	1 2 3 4 5 9	Hospital Freestanding Birthing Center Clinic / Doctor's Office Residence Other Unknown
43-58	16	FILLER	Filler			Blank	
59	1	BFACIL3	Birth Place Recode		U,R	1 2 3	In Hospital Not in Hospital Unknown or Not Stated
60-86	17	FILLER	Filler			Blank	
87	1	MAGE_IMPFLG	Mother's Age Imputed		U,R	Blank 1	Age not imputed Age imputed
88	1	MAGE_REPFLG	Reported Age of Mother Flag		U,R	Blank 1	Reported age not used Reported age used
89-90	2	MAGER41	Mother's Age Recode 41		U,R	01 02 03 04 05 06 07 08 09 10 11 12 13	Under 15 years 15 years 16 years 17 years 18 years 19 years 20 years 21 years 22 years 23 years 24 years 25 years 26 years

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
						14	27 years
						15	28 years
						16	29 years
						17	30 years
						18	31 years
						19	32 years
						20	33 years
						21	34 years
						22	35 years
						23	36 years
						24	37 years
						25	38 years
						26	39 years
						27	40 years
						28	41 years
						29	42 years
						30	43 years
						31	44 years
						32	45 years
						33	46 years
						34	47 years
						35	48 years
						36	49 years
						37	50 years
						38	51 years
						39	52 years
						40	53 years
						41	54 years
91-92	2	MAGER14	Mother's Age Recode 14		U,R	01	Under 15 Years
						03	15 years
						04	16 years
						05	17 years
						06	18 years
						07	19 years
						08	20-24 years
						09	25-29 years
						10	30-34 years
						11	35-39 years
						12	40-44 years
						13	45-49 years

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
						14	50-54 years
93	1	MAGER9	Mother's Age Recode 9		U,R	1 2 3 4 5 6 7 8 9	Under 15 years 15-19 years 20-24 years 25-29 years 30-34 years 35-39 years 40-44 years 45-49 years 50-54 years
94-95	2	FILLER	Filler			Blank	
96-97	2	UMBSTATE	Mother's Birth State		U		
			United States			AK AL AR AZ CA CO CT DE DC FL GA HI ID IL IN IA KS KY LA MA MD ME MI MN MO	Alaska Alabama Arkansas Arizona California Colorado Connecticut Delaware District of Columbia Florida Georgia Hawaii Idaho Illinois Indiana Iowa Kansas Kentucky Louisiana Massachusetts Maryland Maine Michigan Minnesota Missouri

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
						MS	Mississippi
						MT	Montana
						NC	North Carolina
						ND	North Dakota
						NE	Nebraska
						NH	New Hampshire
						NJ	New Jersey
						NM	New Mexico
						NV	Nevada
						NY	New York
						OH	Ohio
						OK	Oklahoma
						OR	Oregon
						PA	Pennsylvania
						RI	Rhode Island
						SC	South Carolina
						SD	South Dakota
						TN	Tennessee
						TX	Texas
						UT	Utah
						VA	Virginia
						VT	Vermont
						WA	Washington
						WI	Wisconsin
						WV	West Virginia
						WY	Wyoming
			Possessions			AS	American Samoa
						GU	Guam
						MP	Northern Marianas
						PR	Puerto Rico
						VI	Virgin Islands
			Foreign			CC	Canada
						CU	Cuba
						MX	Mexico
						YY	Rest of the World
						ZZ	Not Classifiable
98-99	2	FILLER	Filler			Blank	

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
100	1	MBSTATE_REC	Mother's Birth State Recode		U,R	1 2 3	Native born (50 US States) Foreign born (includes possessions) Unknown or Not Stated
101-106	6	FILLER	Filler			Blank	
107-108	2	XMRSTATE	Expanded State of Residence of Mother		U,R		
			United States			AK AL AR AZ CA CO CT DE DC FL GA HI ID IL IN IA KS KY LA MA MD ME MI MN MO MS MT NC ND NE NH NJ NM	Alaska Alabama Arkansas Arizona California Colorado Connecticut Delaware District of Columbia Florida Georgia Hawaii Idaho Illinois Indiana Iowa Kansas Kentucky Louisiana Massachusetts Maryland Maine Michigan Minnesota Missouri Mississippi Montana North Carolina North Dakota Nebraska New Hampshire New Jersey New Mexico

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
						NV	Nevada
						NY	New York
						OH	Ohio
						OK	Oklahoma
						OR	Oregon
						PA	Pennsylvania
						RI	Rhode Island
						SC	South Carolina
						SD	South Dakota
						TN	Tennessee
						TX	Texas
						UT	Utah
						VA	Virginia
						VT	Vermont
						WA	Washington
						WI	Wisconsin
						WV	West Virginia
						WY	Wyoming
						YC	New York City
			Possessions			AS	American Samoa
						GU	Guam
						MP	Northern Marianas
						PR	Puerto Rico
						VI	Virgin Islands
			Foreign			CC	Canada
						CU	Cuba
						MX	Mexico
						XX	Not Applicable
						ZZ	Not Classifiable
109-110	2	MRSTATEFIPS	Mother's Residence FIPS State		U,R		
			United States			AK	Alaska
						AL	Alabama
						AR	Arkansas
						AZ	Arizona
						CA	California
						CO	Colorado
						CT	Connecticut

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U Includes data based on the 1989 Revision of the U.S. Certificate of Live Birth; excludes data based on the 2003 Revision.
R Includes data based on the 2003 Revision of the U.S. Certificate of Live Birth; excludes data based on the 1989 Revision.

Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
						DE	Delaware
						DC	District of Columbia
						FL	Florida
						GA	Georgia
						HI	Hawaii
						ID	Idaho
						IL	Illinois
						IN	Indiana
						IA	Iowa
						KS	Kansas
						KY	Kentucky
						LA	Louisiana
						MA	Massachusetts
						MD	Maryland
						ME	Maine
						MI	Michigan
						MN	Minnesota
						MO	Missouri
						MS	Mississippi
						MT	Montana
						NC	North Carolina
						ND	North Dakota
						NE	Nebraska
						NH	New Hampshire
						NJ	New Jersey
						NM	New Mexico
						NV	Nevada
						NY	New York
						OH	Ohio
						OK	Oklahoma
						OR	Oregon
						PA	Pennsylvania
						RI	Rhode Island
						SC	South Carolina
						SD	South Dakota
						TN	Tennessee
						TX	Texas
						UT	Utah
						VA	Virginia
						VT	Vermont
						WA	Washington

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
						WI WV WY	Wisconsin West Virginia Wyoming
			Possessions			AS GU MP PR VI	American Samoa Guam Northern Marianas Puerto Rico Virgin Islands
			Foreign			CC CU MX XX ZZ	Canada Cuba Mexico Not Applicable Not Classifiable
111-113	3	FILLER	Filler			Blank	
114-116	3	MRCNTYFIPS	Mother's FIPS County		U,R	001-999 000	See Geographic Tables Foreign
117-119	3	FILLER	Filler			Blank	
120-124	5	MRCITYFIPS	Mother's Residence City		U,R	00001-99999 00000	See Geographic Table Foreign
125-126	2	CMSA	Consolidated Metropolitan Statistical Areas		U,R		
			United States			00 07 14 21 28 31 34 35 42 49 56 63	Not a CMSA Boston, Worcester, Lawrence, MA-NH-ME-CT, CMSA Chicago-Gary-Kenosha, IL-IN-WI, CMSA Cincinnati-Hamilton, OH-KY-IN, CMSA Cleveland-Akron, OH, CMSA Dallas-Fort Worth, TX, CMSA Denver-Boulder-Greeley, CO, CMSA Detroit-Ann Arbor-Flint, MI, CMSA Houston-Galveston-Brazoria, TX, CMSA Los Angeles-Riverside-Orange County, CA, CMSA Miami-Fort Lauderdale, FL, CMSA Milwaukee-Racine, WI, CMSA

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
						70	New York-Northern New Jersey-Long Island, NY-NJ-CT-PA, CMSA
						77	Philadelphia-Wilmington-Atlantic City, PA-NJ-DE-MD, CMSA
						79	Portland-Salem, OR-WA, CMSA
						82	Sacramento-Yolo, CA, CMSA
						84	San Francisco-Oakland-San Jose, CA, CMSA
						91	Seattle-Tacoma-Bremerton, WA, CMSA
						97	Washington-Baltimore, DC-MD-VA-WV, CMSA
			Possessions			00	Not a CMSA
						87	San Juan-Caguas-Arecibo, PR, CMSA
127-130	4	MSA	Metropolitan Statistical Areas		U,R	0000 0040 -9360 9999	Nonmetropolitan counties or Foreign residence Code Range Area less than 250,000
131	1	MSA_POP	Population of Statistical Area		U,R	1 2 9 Z	Area of 250,000 or more Area less than 250,000 Nonmetropolitan areas Foreign resident
132	1	RCNTY_POP	Population of Residence County		U,R	0 1 2 9 Z	County of 1,000,000 or more County of 500,000 to 1,000,000 County of 250,000 to 500,000 County less than 250,000 Foreign resident
133	1	RCITY_POP	Population of Residence City		U,R	0 1 2 9 Z	City of 1,000,000 or more City of 500,000 to 1,000,000 City of 250,000 to 500,000 All other areas in the US Foreign resident
134	1	FILLER	Filler				Blank
135	1	METRORES	Metropolitan Residence County		U,R	1 2 Z	Metropolitan County Nonmetropolitan County Foreign resident

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
136	1	FILLER	Filler			Blank	
137	1	RECTYPE	Record Type		U,R	1	RESIDENT: State and county of occurrence and residence are the same.
						2	NONRESIDENT: State and county of occurrence and residence are different.
138	1	RESTATUS	Residence Status		U,R		
			United States			1	RESIDENT: State and county of occurrence and residence are the same.
						2	INTRASTATE NONRESIDENT: State of occurrence and residence are the same but county is different.
						3	INTERSTATE NONRESIDENT: State of occurrence and residence are different but both are one of the 50 US states or District of Columbia.
						4	FOREIGN RESIDENT: The state of residence is not one of the 50 US states or District of Columbia.
			Possessions			1	RESIDENT: State and county of occurrence and residence are the same. (Unique to Guam, all US residents are considered residents of Guam and thus are assigned 1.)
						2	INTRATERRITORY NONRESIDENT: Territory of occurrence and residence are the same but county is different.
						3	INTERTERRITORY RESIDENT: Territory of occurrence and residence are different but both are US Territories.
						4	FOREIGN RESIDENT: The residence is not a US Territory.
139-140	2	MBRACE	Mother's Bridged Race		U,R	01	White – single race
						02	Black – single race
						03	American Indian – single race
						04	Asian Indian – single race
						05	Chinese – single race
						06	Filipino – single race
						07	Japanese – single race
						08	Korean – single race
						09	Vietnamese – single race
						10	Other Asian – single race
						11	Hawaiian – single race

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
						12	Guamanian – single race
						13	Samoan – single race
						14	Other Pacific Islander – single race
						21	White – bridged multiple race
						22	Black – bridged multiple race
						23	American Indian & Alaskan Native – bridged multiple race
						24	Asian / Pacific Islander – bridged multiple race
						Blank	Not on Certificate
141-142	2	MRACE	Mother's Race		U		
			United States			01	White
						02	Black
						03	American Indian & Alaskan Natives
						04	Chinese
						05	Japanese
						06	Hawaiian (includes part Hawaiian)
						07	Filipino
						18	Asian Indian
						28	Korean
						38	Samoan
						48	Vietnamese
						58	Guamanian
						68	Other Asian or Pacific Islander in areas reporting codes 18-58.
						78	Combined other Asian or Pacific Islander, includes 18-68 for areas that do not report them separately.
						Blank	Not on Certificate
			Puerto Rico			01	White
						02	Black
						00	Other races
						Blank	Not on Certificate
			Guam			01	White
						02	Black
						03	American Indian & Alaskan Natives
						04	Chinese
						05	Japanese
						06	Hawaiian (includes part Hawaiian)
						07	Filipino

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
						08	Other Asian or Pacific Islander
						58	Guamanian
						Blank	Not on Certificate
			All other Territories			01	White
						02	Black
						03	American Indian & Alaskan Natives
						04	Chinese
						05	Japanese
						06	Hawaiian (includes part Hawaiian)
						07	Filipino
						08	Other Asian or Pacific Islander
						Blank	Not on Certificate
143	1	MRACEREC	Mother's Race Recode		U,R		
			United States and non-Puerto Rican Territories			1	White
						2	Black
						3	American Indian / Alaskan Native
						4	Asian / Pacific Islander
			Puerto Rico			1	White
						2	Black
						0	Other (not classified as White or Black)
144	1	MRACEIMP	Mother's Race Imputed		U,R	Blank	Mother's race not imputed
						1	Unknown race imputed
						2	All other races, formerly coded 09, imputed.
145-147	3	FILLER	Filler			Blank	
148	1	UMHISP	Mother's Hispanic Origin				
				569	U,R	0	Non-Hispanic
						1	Mexican
						2	Puerto Rican
						3	Cuban
						4	Central American
						5	Other and Unknown Hispanic
						9	Origin unknown or not stated
149	1	MRACEHISP	Mother's Race/Hispanic Origin				

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
				569	U,R	1 2 3 4 5 6 7 8 9	Mexican Puerto Rican Cuban Central or South American Other and Unknown Hispanic Non-Hispanic White Non-Hispanic Black Non-Hispanic Other Races Origin unknown or not stated
150-152	3	FILLER	Filler			Blank	
153	1	MAR	Mother's Marital Status	652	U,R		
			United States & all non-Puerto Rican Territories			1 2 9	Yes No Unknown or not Stated
			Puerto Rico			1 2 3 9	Yes Unmarried parents living together Unmarried parents not living together Unknown or not stated
154	1	MAR_IMP	Mother's Marital Status Imputed		U,R	Blank 1	Marital Status not imputed Marital Status imputed
155	1	MEDUC	Mother's Education Revised	571	R	1 2 3 4 5 6 7 8 9 Blank	8 th grade or less 9 th through 12 th grade with no diploma High school graduate or GED completed Some college credit, but not a degree. Associate degree (AA,AS) Bachelor's degree (BA, AB, BS) Master's degree (MA, MS, MEng, MEd, MSW, MBA) Doctorate (PhD, EdD) or Professional Degree (MD, DDS, DVM, LLB, JD) Unknown Not on Certificate
156-157	2	UMEDUC	Mother's Education Unrevised	647	U	00 01-08 09	No formal education Years of elementary school 1 year of high school

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
						10	2 years of high school
						11	3 years of high school
						12	4 years of high school
						13	1 year of college
						14	2 years of college
						15	3 years of college
						16	4 years of college
						17	5 or more years of college
						99	Not stated
						Blank	Not on Certificate
158	1	MEDUC_REC	Mother's Education Recode	647	U	1	0 – 8 years
						2	9 – 11 years
						3	12 years
						4	13 – 15 years
						5	16 years and over
						6	Not stated
						Blank	Not on Certificate
159-174	16	FILLER	Filler			Blank	
175	1	FAGERPT_FLG	Father's Reported Age Used		U,R	Blank	Father's reported age not used
						1	Father's reported age used
176-177	2	FAGERPT	Father's Reported Age		U,R	09-98	Father's reported age in years
						99	Unknown or not stated
						Blank	Not on Certificate
178-183	6	FILLER	Filler			Blank	
184-185	2	UFAGECOMB	Father's Combined Age		U	10-98	Father's combined age in years
						99	Unknown or not stated
186-187	2	FAGEREC11	Father's Age Recode 11		U,R	01	Under 15 years
						02	15-19 years
						03	20-24 years
						04	25-29 years
						05	30-34 years
						06	35-39 years
						07	40-44 years
						08	45-49 years

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
						09	50-54 years
						10	55-98 years
						11	Not stated
188-189	2	FBRACE	Father's Bridged Race		U,R	01	White – single race
						02	Black – single race
						03	American Indian – single race
						04	Asian Indian – single race
						05	Chinese – single race
						06	Filipino – single race
						07	Japanese – single race
						08	Korean – single race
						09	Vietnamese – single race
						10	Other Asian – single race
						11	Hawaiian – single race
						12	Guamanian – single race
						13	Samoan – single race
						14	Other Pacific Islander – single race
						21	White – bridged multiple race
						22	Black – bridged multiple race
						23	American Indian & Alaskan Native – bridged multiple race
						24	Asian / Pacific Islander – bridged multiple race
						99	Unknown or not stated, also includes states not reporting multiple race.
						Blank	Not on certificate
190	1	FILLER	Filler			Blank	
191	1	FRACEREC	Father's Race Recode		U,R		
			United States and non-Puerto Rican Territories			1	White
						2	Black
						3	American Indian / Alaskan Native
						4	Asian / Pacific Islander
						9	Unknown or not stated
			Puerto Rico			1	White
						2	Black
						9	Unknown or not stated
						0	Other (not classified as White or Black)

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
192-194	3	FILLER	Filler			Blank	
195	1	UFHISP	Father's Hispanic Origin	570	U,R	0 1 2 3 4 5 9	Non-Hispanic Mexican Puerto Rican Cuban Central American Other and Unknown Hispanic Origin unknown or not stated
196	1	FRACEHISP	Father's Race/Hispanic Origin	570	U,R	1 2 3 4 5 6 7 8 9	Mexican Puerto Rican Cuban Central or South American Other and Unknown Hispanic Non-Hispanic White Non-Hispanic Black Non-Hispanic Other Races Origin unknown or not stated
197-198	2	FILLER	Filler			Blank	
199-200	2	FRACE	Father's Race		U	01 02 03 04 05 06 07 18 28 38 48 58 68 78	United States White Black American Indian & Alaskan Natives Chinese Japanese Hawaiian (includes part Hawaiian) Filipino Asian Indian Korean Samoan Vietnamese Guamanian Other Asian or Pacific Islander in areas reporting codes 18-58. Combined other Asian or Pacific Islander, includes 18-68 for areas that do not report them separately.

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
						99 Blank	Unknown or not stated Not on certificate
			Puerto Rico			01 03 00 99 Blank	White Black Other races not classified white or black Unknown or not stated Not on certificate
			Guam			01 02 03 04 05 06 07 08 58 99 Blank	White Black American Indian & Alaskan Natives Chinese Japanese Hawaiian (includes part Hawaiian) Filipino Other Asian or Pacific Islander Guamanian Unknown or not stated Not on certificate
			All other Territories			01 02 03 04 05 06 07 08 99 Blank	White Black American Indian & Alaskan Natives Chinese Japanese Hawaiian (includes part Hawaiian) Filipino Other Asian or Pacific Islander Unknown or not stated Not on certificate
201-203	3	FILLER	Filler			Blank	
204-205	2	PRIORLIVE	Prior Births Now Living		U,R	00-30 99	Number of children still living from previous live births. Unknown or not stated
206-207	2	PRIORDEAD	Prior Births Now Dead		U,R	00-30 99	Number of children dead from previous live births. Unknown or not stated
208-209	2	PRIORTERM	Prior Other Terminations		U,R	00-30	Number other terminations

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
						99	Unknown or not stated
210-211	2	LBO	Live Birth Order		U,R	01-31	Sum of all previous live births (now living and now dead) plus this one.
						99	Unknown or not stated
212	1	LBO_REC	Live Birth Order Recode		U,R	1-7	Number of live birth order.
						8	8 or more live births
						9	Unknown or not stated
213-214	2	FILLER	Filler			Blank	
215-216	2	TBO	Total Birth Order		U,R	01-40	Sum of all previous pregnancies plus this one
						99	Unknown or not stated
217	1	TBO_REC	Total Birth Order Recode		U,R	1-7	Number of total birth order.
						8	8 or more total births
						9	Unknown or not stated
218-219	2	FILLER	Filler			Blank	
220-221	2	DLLB_MM	Date of Last Live Birth Month		U,R	01	January
						02	February
						03	March
						04	April
						05	May
						06	June
						07	July
						08	August
						09	September
						10	October
						11	November
						12	December
						88	Not applicable
						99	Unknown or not stated
222-225	4	DLLB_YY	Date of Last Live Birth Year		U,R	nnnn	Year of last live birth
						8888	Not applicable
						9999	Unknown or not stated
226-244	19	FILLER	Filler			Blank	

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
245-246	2	PRECARE	Month Prenatal Care Began	668	R	00 01-10 99 Blank	No prenatal care Month prenatal care began Unknown or not stated Not on certificate
247	1	PRECARE_REC	Month Prenatal Care Began Recode	668	R	1 2 3 4 5 Blank	1 st to 3 rd month 4 th to 6 th month 7 th to final month No prenatal care Unknown or not stated Not on certificate
248-255	8	FILLER	Filler			Blank	
256-257	2	MPCB	Month Prenatal Care Began	669	U	00 01-10 99 Blank	No prenatal care Month prenatal care began Unknown or not stated Not on certificate
258	1	MPCB_REC6	Month Prenatal Care Began Recode 6	669	U	1 2 3 4 5 6 Blank	1 st to 2 nd month 3 rd month 4 th to 6 th month 7 th to final month No prenatal care Unknown or not stated Not on certificate
259	1	MPCB_REC5	Month Prenatal Care Began Recode 5	669	U	1 2 3 4 5 Blank	1 st trimester (1 st to 3 rd month) 2 nd trimester (4 th to 6 th month) 3 rd trimester (7 th to final month) No prenatal care Unknown or not stated Not on certificate
260-269	10	FILLER	Filler			Blank	
270-271	2	UPREVIS	Number of Prenatal Visits		U,R	00-49 99	Number of prenatal visits Unknown or not stated

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
272-273	2	PREVIS_REC	Number of Prenatal Visits Recode		U,R	01 02 03 04 05 06 07 08 09 10 11 12	No visits 1 to 2 visits 3 to 4 visits 5 to 6 visits 7 to 8 visits 9 to 10 visits 11 to 12 visits 13 to 14 visits 15 to 16 visits 17 to 18 visits 19 or more visits Unknown or not stated
274-275	2	FILLER	Filler			Blank	
276-277	2	WTGAIN	Weight Gain	648	U,R	00-97 98 99	Weight gain in pounds 98 pounds and over Unknown or not stated
278	1	WTGAIN_REC	Weight Gain Recode	648	U,R	1 2 3 4 5 6 7 8 9	Less than 16 pounds 16 to 20 pounds 21 to 25 pounds 26 to 30 pounds 31 to 35 pounds 36 to 40 pounds 41 to 45 pounds 46 or more pounds Unknown or not stated
279-283	5	FILLER	Filler			Blank	
284-285	2	CIG_1	Cigarettes 1st Trimester		R	00-97 98 99 Blank	Number of cigarettes daily 98 or more cigarettes daily Unknown or not stated Not on certificate
286-287	2	CIG_2	Cigarettes 2nd Trimester		R	00-97 98 99 Blank	Number of cigarettes daily 98 or more cigarettes daily Unknown or not stated Not on certificate

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
288-289	2	CIG_3	Cigarettes 3rd Trimester		R	00-97 98 99 Blank	Number of cigarettes daily 98 or more cigarettes daily Unknown or not stated Not on certificate
290	1	TOBUSE	Tobacco Use	667	U	1 2 9 Blank	Yes No Unknown or not stated Not on certificate
291-292	2	CIGS	Cigarettes per Day		U	00-97 98 99 Blank	Number of cigarettes daily 98 or more cigarettes daily Unknown or not stated Not on certificate
293	1	CIG_REC6	Cigarette Recode		U	0 1 2 3 4 5 6 Blank	Non-smoker 1 to 5 cigarettes daily 6 to 10 cigarettes daily 11 to 20 cigarettes daily 21 to 40 cigarettes daily 41 or more cigarettes daily Unknown or not stated Not on certificate
294	1	CIG_REC	Cigarette Recode	575	R	Y N U Blank	Yes No Unknown or not stated Not on certificate
295	1	ALCOHOL	Alcohol Use	649	U	1 2 9 Blank	Yes No Unknown or not stated Not on certificate
296-297	2	DRINKS	Drinks per Week	649	U	00-97 98 99 Blank	Number of drinks weekly 98 or more drinks weekly Unknown or not stated Not on certificate
298	1	DRINKS_REC	Drinks Recode	649	U	0 1	Non drinker 1 drink per week

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
						2	2 drinks per week
						3	3-4 drinks per week
						4	5 or more drinks per week
						5	Unknown or not stated
						Blank	Not on certificate
299-327	29	FILLER	Filler			Blank	
328-344	17		<u>Risk Factors</u> The checkbox items indented below follow this structure: The version is all 1989 Standard unless otherwise noted.				
						1	Yes
						2	No
						8	Not on certificate
						9	Unknown
328	1	URF_ANEMIA	Anemia		U		
329	1	URF_CARDC	Cardiac		U		
330	1	URF_LUNG	Acute or Chronic Lung Disease		U		
331	1	URF_DIAB	Diabetes		U,R		
332	1	URF_GEN	Genital Herpes		U		
333	1	URF_HYDR	Hydramnios / Oligohydramnios		U		
334	1	URF_HEMO	Hemoglobinopathy		U		
335	1	URF_CHYPER	Cronic Hypertension		U,R		
336	1	URF_PHYPER	Prepregnacny Associated Hypertension		U,R		
337	1	URF_ECLAM	Eclampsia		U,R		
338	1	URF_INCERV	Incompetent Cervix		U		
339	1	URF_PRE4000	Previous Infant 4000+ Grams		U		
340	1	URF_PRETERM	Previous Preterm Small for Gestation		U		
341	1	URF_RENAL	Renal Disease		U		
342	1	URF_RH	Rh Sensitization		U		
343	1	URF_UTERINE	Uterine Bleeding		U		
344	1	URF_OTHER	Other medical risk factors		U		
345-354	10	FILLER	Filler			Blank	
355-361	7		<u>Obstetric Procedures</u> The checkbox items indented below follow this structure: The version is all 1989 Standard unless otherwise noted.				
						1	Yes

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						2	No
						8	Not on certificate
						9	Unknown or not stated
355	1	UOP_AMNIO	Amniocentesis		U		
356	1	UOP_MONIT	Electronic Fetal Monitoring		U		
357	1	UOP_INDUC	Induction of Labor		U,R		
358	1	UOP_STIML	Stimulation of Labor		U		
359	1	UOP_TOCOL	Tocolysis		U,R		
360	1	UOP_ULTRA	Ultrasound		U		
361	1	UOP_OTHER	Other Obstetric Procedures		U		
362-373	12	FILLER	Filler				Blank
374-389	16		<u>Complications of Labor and Delivery</u> The checkbox items indented below follow this structure: The version is all 1989 Standard unless otherwise noted.				
						1	Yes
						2	No
						8	Not on certificate
						9	Unknown or not stated
374	1	ULD_FEBR	Febrile		U		
375	1	ULD_MECO	Meconium		U,R		
376	1	ULD_RUPTR	Premature Rupture of Membrane		U		
377	1	ULD_ABRUP	Abruptio Placenta		U		
378	1	ULD_PREPLA	Placenta Previa		U		
379	1	ULD_EXCBL	Other Excessive Bleeding		U		
380	1	ULD_SEIZ	Seizures During Labor		U		
381	1	ULD_PRECIP	Precipitous Labor		U,R		
382	1	ULD_PROLG	Prolonged Labor		U		
383	1	ULD_DYSFN	Dysfunctional Labor		U		
384	1	ULD_BREECH	Breech		U,R		
385	1	ULD_CEPHAL	Cephalopelvic Disproportion		U		
386	1	ULD_CORD	Cord Prolapse		U		
387	1	ULD_ANEST	Anesthetic Complications		U		
388	1	ULD_DISTR	Fetal Distress		U		
389	1	ULD_OTHER	Other Complications		U		
390-394	5	FILLER	Filler				Blank
395-400	6		<u>Method of Delivery</u>				

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
			The checkbox items indented below follow this structure:			1	Yes
						2	No
						8	Not on certificate
						9	Unknown or not stated
395	1	UME_VAG	Vaginal		U,R		
396	1	UME_VBAC	Vaginal after C-Section		U,R		
397	1	UME_PRIMC	Primary C-Section		U,R		
398	1	UME_REPEC	Repeat C-Section		U,R		
399	1	UME_FORCP	Forceps		U,R		
400	1	UME_VAC	Vacuum		U,R		
401	1	DMETH_REC	Delivery Method Recode		U,R	1	Vaginal (excludes vaginal after previous C-section)
						2	Vaginal after previous c-section
						3	Primary C-section
						4	Repeat C-section
						5	Not stated
						6	Vaginal (unknown if previous c-section) (2003 Standard only)
						7	C-section (unknown if previous c-section) (2003 Standard only)
402-407	6	FILLER	Filler			Blank	
408	1	ATTEND	Attendant		U,R	1	Doctor of Medicine (MD)
						2	Doctor of Osteopathy (DO)
						3	Certified Nurse Midwife (CNM)
						4	Other Midwife
						5	Other
						9	Unknown or not stated
409-414	6	FILLER	Filler			Blank	
415-416	2	APGAR5	Five Minute APGAR Score 574		U,R	00-10	A score of 0-10
						99	Unknown or not stated
417	1	APGAR5R	Five Minute APGAR Recode		U,R	1	A score of 0-3
						2	A score of 4-6
						3	A score of 7-8
						4	A score of 9-10

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
						5	Unknown or not stated
418-422	5	FILLER	Filler			Blank	
423	1	DPLURAL	Plurality Recode		U,R	1 2 3 4 5	Single Twin Triplet Quadruplet Quintuplet or higher
424	1	FILLER	Filler			Blank	
425	1	IMP_PLUR	Plurality Imputed		U,R	Blank 1	Plurality is not imputed Plurality is imputed
426-435	10	FILLER	Filler			Blank	
436	1	SEX	Sex of Infant		U,R	M F	Male Female
437	1	IMP_SEX	Imputed Sex		U,R	Blank 1	Infant Sex not Imputed Infant Sex is Imputed
438-439	2	DLMP_MM	Last Normal Menses Month		U,R	01 02 03 04 05 06 07 08 09 10 11 12 99	January February March April May June July August September October November December Unknown or not stated
440-441	2	DLMP_DD	Last Normal Menses Day		U,R	01-31 99	As applicable to month of LMP Unknown or not stated
442-445	4	DLMP_YY	Last Normal Menses Year		U,R	nnnn	Year of last normal menses

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
						9999	Unknown or not stated
446-447	2	ESTGEST	Obstetric/Clinical Gestation Est.	573	U,R	16-47 99	16 th through 47 th week of gestation Unknown or not stated
448-450	3	FILLER	Filler				
451-452	2	COMBGEST	Gestation – Detail in Weeks		U,R	17-47 99	17 th through 47 th week of Gestation Unknown
453-454	2	GESTREC10	Gestation Recode 10		U,R	01 02 03 04 05 06 07 08 09 10	Under 20 weeks 20-27 weeks 28-31 weeks 32-35 weeks 36 weeks 37-39 weeks 40 weeks 41 weeks 42 weeks and over Unknown
455	1	GESTREC3	Gestation Recode 3		U,R	1 2 3	Under 37 weeks 37 weeks and over Not stated
456	1	OBGEST_FLG	Clinical Estimate of Gestation Used Flag		U,R	Blank 1	Clinical Estimate is not used Clinical Estimate is used
457	1	GEST_IMP	Gestation Imputed Flag		U,R	Blank 1	Gestation is not imputed Gestation is imputed
458-466	9	FILLER	Filler			Blank	
467-470	4	DBWT	Birth Weight – Detail in Grams		U,R	0227-8165 9999	Number of grams Not stated birth weight
471-472	2	BWTR14	Birth Weight Recode 14		U,R	01 02 03 04 05	499 grams or less 500 – 749 grams 750 - 999 grams 1000 - 1249 grams 1250 – 1499 grams

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
						06	1500 – 1999 grams
						07	2000 – 2499 grams
						08	2500 – 2999 grams
						09	3000 – 3499 grams
						10	3500 – 3999 grams
						11	4000 – 4499 grams
						12	4500 – 4999 grams
						13	5000 – 8165 grams
						14	Not Stated
473	1	BWTR4	Birth Weight Recode 4		U,R	1	1499 grams or less
						2	1500 – 2499 grams
						3	2500 grams or more
						4	Unknown or not stated
474	1	FILLER	Filler			Blank	
475	1	BWTIMP	Imputed Birthweight Flag		U	Blank	Birthweight is not imputed
						1	Birthweight is imputed
476-482	7	FILLER	Filler			Blank	
483-491	9		<u>Abnormal Conditions of the Newborn</u> The checkbox items indented below follow this structure:				
						1	Complication reported
						2	Complication not reported
						8	Complication not on certificate
						9	Complication not classifiable
483	1	UAB_ANEM	Anemia		U		
484	1	UAB_INJURY	Birth Injury		U		
485	1	UAB_ALCOH	Fetal Alcohol Syndrome		U		
486	1	UAB_HYAL	Hyaline Membrane Disease		U		
487	1	UAB_MECON	Meconium Aspiration Syndrome		U		
488	1	UAB_VENL30	Assisted Ventilation < 30 min		U		
489	1	UAB_VEN30M	Assisted Ventilation >= 30 min		U		
490	1	UAB_NSEIZ	Seizures		U		
491	1	UAB_OTHER	Other Abnormal Conditions		U		
492-503	12	FILLER	Filler			Blank	

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
504-525	22		<u>Congenital Anomalies of the Newborn</u> The checkbox items indented below follow this structure: The version is all 1989 Standard unless otherwise noted.			1 2 8 9	Anomaly reported Anomaly not reported Anomaly not on certificate Anomaly not classifiable
504	1	UCA_ANEN	Anencephalus		U,R		
505	1	UCA_SPINA	Spina Bifida / Meningocele		U,R		
506	1	UCA_HYDRO	Hydrocephalus		U		
507	1	UCA_MICRO	Microcephalus		U		
508	1	UCA_NERV	Other Central Nervous System Anomalies		U		
509	1	UCA_HEART	Heart Malformations		U		
510	1	UCA_CIRC	Other Circulatory / Respiration Anomalies		U		
511	1	UCA_RECTAL	Rectal Atresia / Stenosis		U		
512	1	UCA_TRACH	Tracheo-Esophageal Fistula		U		
513	1	UCA_OMPHA	Omphalocele / Gastroschisis		U,R		
514	1	UCA_GASTRO	Other Gastrointestinal Anomalies		U		
515	1	UCA_GENITAL	Malformed Genitalia		U		
516	1	UCA_RENAL	Renal Agenesis		U		
517	1	UCA_UROGEN	Other Urogenital Anomalies		U		
518	1	UCA_CELFTLP	Cleft Lip / Palate		U,R		
519	1	UCA_ADACTY	Polydactyly / Syndactyly / Adactyly		U		
520	1	UCA_CLUBFT	Club Foot		U		
521	1	UCA_HERNIA	Diaphragmatic Hernia		U		
522	1	UCA_MUSCU	Other Musculoskeletal Anomalies		U		
523	1	UCA_DOWNS	Downs Syndrome		U,R		
524	1	UCA_CHROM	Other Chromosomal Anomalies		U		
525	1	UCA_OTHER	Other Congenital Anomalies		U		
526-568	43	FILLER	Filler				Blank
569-669	101		<u>Flag File for Reporting Flags</u> The reporting flags indented below follow this coding structure:			0 1	Not reporting Reporting
569	1	F_MORIGIN	Origin of Mother		U,R		
570	1	F_FORIGIN	Origin of Father		U,R		
571	1	F_MEDUC	Education of Mother		R		

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition	
572	1	FILLER	Filler			Blank		
573	1	F_CLINEST	Clinical Estimate of Gestation		U,R			
574	1	F_APGAR5	Five minute APGAR		U,R			
575	1	F_TOBACO	Tobacco use		R			
576-646	71	FILLER	Filler			Blank		
647	1	F_MED	Mother's Education		U			
648	1	F_WTGAIN	Weight Gain		U,R			
649	1	F_ALCOL	Alcohol use		U			
650	1	F_API	API Codes		U			
651-666	16	FILLER	Filler			Blank		
667	1	F_TOBAC	Tobacco Use		U			
668	1	F_MPCB	Month Prenatal Care Began		R			
669	1	F_MPCB_U	Month Prenatal Care Began		U			
670-682	13	FILLER	Filler			Blank		
683-706	24	<u>Mother's Race Edited</u>			R**	100-999 A00-R99	Mother's Race Edited Code	
683	3	MRACE1E						
686	3	MRACE2E						
689	3	MRACE3E						
692	3	MRACE4E						
695	3	MRACE5E						
698	3	MRACE6E						
701	3	MRACE7E						
704	3	MRACE8E						
			**Also includes unrevised States that report multiple race.					
707-717	11	FILLER	Filler			Blank		
718-741	24	<u>Father's Race Edited</u>			R**	100-999 A00-R99	Father's Race Edited Code	
718	3	FRACE1E						
721	3	FRACE2E						
724	3	FRACE3E						
727	3	FRACE4E						
730	3	FRACE5E						
733	3	FRACE6E						
736	3	FRACE7E						
739	3	FRACE8E						
			**Also includes unrevised States that report multiple race.					

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
742-750	9	FILLER	Filler			Blank	
751	1	MATCHS	Match Status		U,R	1 2 3	Matched birth/infant death record Surviving infant record Unmatched infant death record Note: This code is used in the unlinked file only.
752-754	3	FILLER	Filler			Blank	
755-757	3	AGED	Age at Death in Days			000-364	Number of days
758	1	AGER5	Infant age recode 5			1 2 3 4 5	Under 1 hour 1 – 23 hours 1 – 6 days 7 – 27 days (late neonatal) 28 days and over (postneonatal)
759-760	2	AGER22	Infant age recode 22			Blank 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22	Age 1 year and over or not stated Under 1 hour (includes not stated hours and minutes) 1 – 23 hours 1 day (includes not stated days) 2 days 3 days 4 days 5 days 6 days 7 - 13 days (includes not stated weeks) 14 – 20 days 21 – 27 days 1 month (includes not stated months) 2 months 3 months 4 months 5 months 6 months 7 months 8 months 9 months 10 months 11 months

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
761	1	MANNER	Manner of Death			1 2 3 4 5 6 7 Blank	Accident Suicide Homicide Pending investigation Could not determine Self-inflicted Natural Not specified
762	1	DISPO	Method of Disposition			B C D E R O U	Burial Cremation Donation Entombment Removed from State Other Unknown
763	1	AUTOPSY	Autopsy			Y N U	Yes No Unknown
764	1	FILLER	Filler			Blank	
765	1	PLACE	Place of injury for causes W00-Y34, except Y06.- and Y07.-			0 1 2 3 4 5 6 7 8 9 Blank	Home Residential institution School, other institution and public administrative area Sports and athletics area Street and highway Trade and service area Industrial and construction area Farm Other Specified Places Unspecified place Cause other than W00-Y34, except Y06.- and Y07.-
766	1	FILLER	Filler			Blank	
767-774	8		<u>UNDERLYING CAUSE OF DEATH</u>				

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
767-770	4	UCOD	ICD Code (10th Revision) See the <u>International Classification of Diseases, 1992</u> Revision, Volume 1.				
771	1	FILLER	Filler			Blank	
772-774	3	UCODR130	130 Infant Cause Recode			001-158	Code range
775	1	FILLER	Filler			Blank	
776-783	8	RECWT	Record Weight (no weights computed for possessions file)			1.XXXXXX	
784-785	2	FILLER	Filler			Blank	

Here ends the denominator-plus file. Documentation for the mortality section of the numerator (linked) file continues on the next page.

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
786-1066	281		<u>MULTIPLE CONDITIONS</u>				
786-787	2	EANUM	Number of Entity-Axis Conditions			00-20	Code range
788-927	140	ENTITY	Entity-Axis Conditions Space has been provided for a maximum of 20 conditions. Each condition takes 7 positions in the record. The 7 th position will be blank. Records that do not have 20 conditions are blank in the unused area. Position 1: Part/line number on certificate 1 ... Part I, line 1 (a) 2 ... Part I, line 2 (b) 3 ... Part I, line 3 (c) 4 ... Part I, line 4 (d) 5 ... Part I, line 5 (e) 6 ... Part II, Position 2: Sequence of condition within part/line 1-7 ... Code range Position 3 – 6: Condition code See Table 1 for a complete list of codes				
788-794	7		1 st Condition				
795-801	7		2 nd Condition				
802-808	7		3 rd Condition				
809-815	7		4 th Condition				
816-822	7		5 th Condition				
823-829	7		6 th Condition				
830-836	7		7 th Condition				
837-843	7		8 th Condition				
844-850	7		9 th Condition				
851-857	7		10 th Condition				
858-864	7		11 th Condition				
865-871	7		12 th Condition				
872-878	7		13 th Condition				
879-885	7		14 th Condition				
886-892	7		15 th Condition				

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
893-899	7		16 th Condition				
900-906	7		17 th Condition				
907-913	7		18 th Condition				
914-920	7		19 th Condition				
921-927	7		20 th Condition				
928-929	2	FILLER	Filler			Blank	
930-931	2	RANUM	Number of Record-Axis Conditions			00-20	Code range
932-1031	100	RECORD	Record-Axis Conditions Space has been provided for a maximum of 20 conditions. Each condition takes 5 positions in the record. The 5 th position will be blank. Records that do not have 20 conditions are blank in the unused area. Positions 1 – 4: Condition Code See Table 1 for a complete list of codes				
932-936	5		1 st Condition				
937-941	5		2 nd Condition				
942-946	5		3 rd Condition				
947-951	5		4 th Condition				
952-956	5		5 th Condition				
957-961	5		6 th Condition				
962-966	5		7 th Condition				
967-971	5		8 th Condition				
972-976	5		9 th Condition				
977-981	5		10 th Condition				
982-986	5		11 th Condition				
987-991	5		12 th Condition				
992-996	5		13 th Condition				
997-1001	5		14 th Condition				
1002-1006	5		15 th Condition				
1007-1011	5		16 th Condition				
1012-1016	5		17 th Condition				
1017-1021	5		18 th Condition				
1022-1026	5		19 th Condition				
1027-1031	5		20 th Condition				
1032-1033	2	FILLER	Filler			Blank	

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
1034	1	RESSTATD	Resident Status				
			United States Occurrence			1	RESIDENTS State and County of Occurrence and Residence are the same.
						2	INTRASTATE NONRESIDENTS State of Occurrence and Residence are the same, but County is different.
						3	INTERSTATE NONRESIDENTS State of Occurrence and Residence are different, but both are in the U.S.
						4	FOREIGN RESIDENTS State of Occurrence is one of the 50 States or the District of Columbia, but Place of Residence is outside of the U.S.
			Puerto Rico Occurrence			1	RESIDENTS Territory and County-equivalent of Occurrence and Residence are the same.
						2	INTRASTATE NONRESIDENTS Territory of Occurrence and Residence are the same, but County-equivalent is different.
						3	INTERTERRITORY NONRESIDENTS Territory of occurrence and residence are different, but both are a Territory.
						4	FOREIGN RESIDENTS Occurred in Puerto Rico to a resident of any other place.
			Virgin Islands Occurrence			1	RESIDENTS Territory and County-equivalent of Occurrence and Residence are the same.
						2	INTRASTATE NONRESIDENTS Territory of Occurrence and Residence are the same, but County-equivalent is different.
						3	INTERTERRITORY NONRESIDENTS Territory of occurrence and residence are different, but both are a Territory.
						4	FOREIGN RESIDENTS Occurred in Virgin Islands to a resident of any other place.

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
			Guam Occurrence			1	RESIDENTS Occurred in Guam to a resident of Guam or to a resident of the U.S.
						3	INTERTERRITORY NONRESIDENTS Territory of occurrence and residence are different, but both are a Territory.
						4	FOREIGN RESIDENTS Occurred in Guam to a resident of any place other than Guam or the U.S.
1035-1068	34		<u>FEDERAL INFORMATION PROCESSING STANDARDS (FIPS) GEOGRAPHIC CODES</u> Refer to the Geographic Code Outline further back in this document for a detailed list of areas and codes. For an explanation of FIPS codes, reference should be made to various National Institute of Standards and Technology (NIST) publications. Some geographic codes have been changed to reflect the results of the 2000 Census.				
1035-1042	8		<u>PLACE OF OCCURRENCE</u>				
1035-1036	2	STOCCFIPD	State of Occurrence (FIPS) United States			AL AK AZ AR CA CO CT DE DC FL GA HI ID IL IN	Alabama Alaska Arizona Arkansas California Colorado Connecticut Delaware District of Columbia Florida Georgia Hawaii Idaho Illinois Indiana

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						IA	Iowa
						KS	Kansas
						KY	Kentucky
						LA	Louisiana
						ME	Maine
						MD	Maryland
						MA	Massachusetts
						MI	Michigan
						MN	Minnesota
						MS	Mississippi
						MO	Missouri
						MT	Montana
						NE	Nebraska
						NV	Nevada
						NH	New Hampshire
						NJ	New Jersey
						NM	New Mexico
						NY	New York
						NC	North Carolina
						ND	North Dakota
						OH	Ohio
						OK	Oklahoma
						OR	Oregon
						PA	Pennsylvania
						RI	Rhode Island
						SC	South Carolina
						SD	South Dakota
						TN	Tennessee
						TX	Texas
						UT	Utah
						VT	Vermont
						VA	Virginia
						WA	Washington
						WV	West Virginia
						WI	Wisconsin
						WY	Wyoming
			Puerto Rico				
						PR	Puerto Rico
			Virgin Islands				

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Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
						VI	Virgin Islands
			Guam			GU	Guam
1037-1039	3	CNTOCFIPD	County of Occurrence (FIPS) Counties and county equivalents (independent and coextensive cities) are numbered alphabetically within each State and identify each county. (Note: To uniquely identify a county, both the state and county codes must be used.) A complete list of counties is shown in the Geographic Code Outline further back in this document.			001-nnn 999	Code range County with less than 250,000 population
1040-1041	2	ESTATOCD	Expanded State of Occurrence Code This item is designed to separately identify New York City records (YC) from other New York State records. Note: YC is not an official FIPS code. United States			AL AK AZ AR CA CO CT DE DC FL GA HI ID IL IN IA KS KY	Alabama Alaska Arizona Arkansas California Colorado Connecticut Delaware District of Columbia Florida Georgia Hawaii Idaho Illinois Indiana Iowa Kansas Kentucky

*U,R Includes data based on both the 1989 Revision of the U.S. Certificate of Live Birth (unrevised), and the 2003 Revision of the U.S. Certificate of Live Birth (revised).
U Includes data based on the 1989 Revision of the U.S. Certificate of Live Birth; excludes data based on the 2003 Revision.
R Includes data based on the 2003 Revision of the U.S. Certificate of Live Birth; excludes data based on the 1989 Revision.

Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
						LA	Louisiana
						ME	Maine
						MD	Maryland
						MA	Massachusetts
						MI	Michigan
						MN	Minnesota
						MS	Mississippi
						MO	Missouri
						MT	Montana
						NE	Nebraska
						NV	Nevada
						NH	New Hampshire
						NJ	New Jersey
						NM	New Mexico
						NY	New York
						YC	New York City
						NC	North Carolina
						ND	North Dakota
						OH	Ohio
						OK	Oklahoma
						OR	Oregon
						PA	Pennsylvania
						RI	Rhode Island
						SC	South Carolina
						SD	South Dakota
						TN	Tennessee
						TX	Texas
						UT	Utah
						VT	Vermont
						VA	Virginia
						WA	Washington
						WV	West Virginia
						WI	Wisconsin
						WY	Wyoming
			Puerto Rico			PR	Puerto Rico
			Virgin Islands			VI	Virgin Islands

*U,R Includes data based on both the 1989 Revision of the U.S. Certificate of Live Birth (unrevised), and the 2003 Revision of the U.S. Certificate of Live Birth (revised).
U Includes data based on the 1989 Revision of the U.S. Certificate of Live Birth; excludes data based on the 2003 Revision.
R Includes data based on the 2003 Revision of the U.S. Certificate of Live Birth; excludes data based on the 1989 Revision.

Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
			Guam			GU	Guam
1042	1	CNTOCPPD	Population Size of County of Occurrence Based on the results of the 2000 Census			0 1 2 9	County of 1,000,000 or more County of 500,000 to 1,000,000 County of 250,000 to 500,000 Counties of less than 250,000
1043-1066	24		<u>PLACE OF RESIDENCE</u> Refer to the Geographic Code Outline further back in this document for a detailed list of areas and codes. Beginning with 2003 data, some areas started reporting additional codes for foreign residents.				
1043-1044	2	STRESFIPD	State of Residence (FIPS) US Occurrence			ZZ AL AK AZ AR CA CO CT DE DC FL GA HI ID IL IN IA KS KY LA ME MD	Foreign residents Alabama Alaska Arizona Arkansas California Colorado Connecticut Delaware District of Columbia Florida Georgia Hawaii Idaho Illinois Indiana Iowa Kansas Kentucky Louisiana Maine Maryland

*U,R Includes data based on both the 1989 Revision of the U.S. Certificate of Live Birth (unrevised), and the 2003 Revision of the U.S. Certificate of Live Birth (revised).
U Includes data based on the 1989 Revision of the U.S. Certificate of Live Birth; excludes data based on the 2003 Revision.
R Includes data based on the 2003 Revision of the U.S. Certificate of Live Birth; excludes data based on the 1989 Revision.

Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
						MA	Massachusetts
						MI	Michigan
						MN	Minnesota
						MS	Mississippi
						MO	Missouri
						MT	Montana
						NE	Nebraska
						NV	Nevada
						NH	New Hampshire
						NJ	New Jersey
						NM	New Mexico
						NY	New York
						NC	North Carolina
						ND	North Dakota
						OH	Ohio
						OK	Oklahoma
						OR	Oregon
						PA	Pennsylvania
						RI	Rhode Island
						SC	South Carolina
						SD	South Dakota
						TN	Tennessee
						TX	Texas
						UT	Utah
						VT	Vermont
						VA	Virginia
						WA	Washington
						WV	West Virginia
						WI	Wisconsin
						WY	Wyoming
			Territories			PR	Puerto Rico
						VI	Virgin Islands
						GU	Guam
						AS	American Samoa
						MP	Northern Marianas
			Puerto Rico Occurrence			PR	Puerto Rico
						AL-WY,	

*U,R Includes data based on both the 1989 Revision of the U.S. Certificate of Live Birth (unrevised), and the 2003 Revision of the U.S. Certificate of Live Birth (revised).
U Includes data based on the 1989 Revision of the U.S. Certificate of Live Birth; excludes data based on the 2003 Revision.
R Includes data based on the 2003 Revision of the U.S. Certificate of Live Birth; excludes data based on the 1989 Revision.

Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
						VI,AS,GU, MP,ZZ	Foreign residents: refer to U.S. for specific code structure.
			Virgin Islands Occurrence			VI AL-WY, PR,AS,GU, MP, ZZ	Virgin Islands Foreign residents: refer to U.S. for specific code structure.
			Guam Occurrence			GU AL-WY PR,AS, VI,MP, ZZ	Guam U.S. resident. Also considered a resident of Guam. Foreign residents: refer to U.S. for specific code structure.
1045-1046	2	DRCNTRY	Country of Residence				
			US Occurrence				
			Countries have alphabetic values. A complete list of countries is shown in the Geographic coding manual.			AA-ZZ	Code range
1047-1048	2	DRSTCNTRY	State/Country of Residence Recode				
			See Country of Residence (location 1045-1046) for detailed Country information. Note: Canada (CC) and Remainder of world (YY) are not the official FIPS code.				
			United States Occurrence			AL AK AZ AR CA CO CT DE DC FL GA	Alabama Alaska Arizona Arkansas California Colorado Connecticut Delaware District of Columbia Florida Georgia

*U,R Includes data based on both the 1989 Revision of the U.S. Certificate of Live Birth (unrevised), and the 2003 Revision of the U.S. Certificate of Live Birth (revised).
U Includes data based on the 1989 Revision of the U.S. Certificate of Live Birth; excludes data based on the 2003 Revision.
R Includes data based on the 2003 Revision of the U.S. Certificate of Live Birth; excludes data based on the 1989 Revision.

Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
						HI	Hawaii
						ID	Idaho
						IL	Illinois
						IN	Indiana
						IA	Iowa
						KS	Kansas
						KY	Kentucky
						LA	Louisiana
						ME	Maine
						MD	Maryland
						MA	Massachusetts
						MI	Michigan
						MN	Minnesota
						MS	Mississippi
						MO	Missouri
						MT	Montana
						NE	Nebraska
						NV	Nevada
						NH	New Hampshire
						NJ	New Jersey
						NM	New Mexico
						NY	New York
						NC	North Carolina
						ND	North Dakota
						OH	Ohio
						OK	Oklahoma
						OR	Oregon
						PA	Pennsylvania
						RI	Rhode Island
						SC	South Carolina
						SD	South Dakota
						TN	Tennessee
						TX	Texas
						UT	Utah
						VT	Vermont
						VA	Virginia
						WA	Washington
						WV	West Virginia
						WI	Wisconsin
						WY	Wyoming
			Territorial residents				

*U,R Includes data based on both the 1989 Revision of the U.S. Certificate of Live Birth (unrevised), and the 2003 Revision of the U.S. Certificate of Live Birth (revised).
U Includes data based on the 1989 Revision of the U.S. Certificate of Live Birth; excludes data based on the 2003 Revision.
R Includes data based on the 2003 Revision of the U.S. Certificate of Live Birth; excludes data based on the 1989 Revision.

Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
			Foreign residents			PR VI GU AS MP	Puerto Rico Virgin Islands Guam American Samoa Northern Marianas
			Puerto Rico Occurrence			CC MX CU YY	Canada Mexico Cuba Remainder of the world
			Virgin Islands Occurrence			PR AL-ZZ	Puerto Rico Foreign residents: refer to U.S. for specific code structure.
			Guam Occurrence			VI AL-ZZ	Virgin Islands Foreign residents: refer to U.S. for specific code structure.
						GU AL-WY PR,VI,AS, MP,ZZ	Guam U.S. resident. Also considered a resident of Guam Foreign residents: refer to U.S. for specific code structure.
1049-1051	3	CNTYRFPD	County of Residence (FIPS) Counties and county equivalents (independent and coextensive cities) are numbered alphabetically within each State and identify each county. (Note: To uniquely identify a county, both the state and county codes must be used.) A complete list of counties is shown in the Geographic Code Outline further back in this document.			000 001-999	Foreign residents Code range County with less than 250,000 population
1052-1056	5	PLRES	City of Residence (FIPS) A complete list of cities is shown in the Geographic code outline further back in this document. Effective with the 1994 data year, the FIPS place code has been added to the Mortality record.				

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U Includes data based on the 1989 Revision of the U.S. Certificate of Live Birth; excludes data based on the 2003 Revision.
R Includes data based on the 2003 Revision of the U.S. Certificate of Live Birth; excludes data based on the 1989 Revision.

Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
						00000	Foreign residents
						00001-	
						nnnnn	Code range
						99999	Balance of county or city less than 250,000 population
1057	1	CITRSPPD	Population Size of City of Residence Based on the results of the 2000 Census.			0	Place of 1,000,000 or more
						1	Place of 500,000 to 1,000,000
						2	Place of 250,000 to 500,000
						9	Place of less than 250,000
						Z	Foreign residents
1058	1	METRRESD	Metropolitan - Nonmetropolitan County of Residence NOTE: Guam and the Virgin Islands do not have any metropolitan areas.			1	Metropolitan county
						2	Nonmetropolitan county
						Z	Foreign residents
1059-1060	2	DRSTATE	Expanded State of Residence Code This item is designed to separately identify New York City records (YC) from other New York State records. Note: YC, CC, and YY are not official FIPS codes. United States Occurrence			AL	Alabama
						AK	Alaska
						AZ	Arizona
						AR	Arkansas
						CA	California
						CO	Colorado
						CT	Connecticut
						DE	Delaware
						DC	District of Columbia
						FL	Florida
						GA	Georgia
						HI	Hawaii
						ID	Idaho
						IL	Illinois
						IN	Indiana

*U,R Includes data based on both the 1989 Revision of the U.S. Certificate of Live Birth (unrevised), and the 2003 Revision of the U.S. Certificate of Live Birth (revised).

U Includes data based on the 1989 Revision of the U.S. Certificate of Live Birth; excludes data based on the 2003 Revision.

R Includes data based on the 2003 Revision of the U.S. Certificate of Live Birth; excludes data based on the 1989 Revision.

Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
						IA	Iowa
						KS	Kansas
						KY	Kentucky
						LA	Louisiana
						ME	Maine
						MD	Maryland
						MA	Massachusetts
						MI	Michigan
						MN	Minnesota
						MS	Mississippi
						MO	Missouri
						MT	Montana
						NE	Nebraska
						NV	Nevada
						NH	New Hampshire
						NJ	New Jersey
						NM	New Mexico
						NY	New York
						YC	New York City
						NC	North Carolina
						ND	North Dakota
						OH	Ohio
						OK	Oklahoma
						OR	Oregon
						PA	Pennsylvania
						RI	Rhode Island
						SC	South Carolina
						SD	South Dakota
						TN	Tennessee
						TX	Texas
						UT	Utah
						VT	Vermont
						VA	Virginia
						WA	Washington
						WV	West Virginia
						WI	Wisconsin
						WY	Wyoming
			Territorial residents			PR	Puerto Rico
						VI	Virgin Islands

*U,R Includes data based on both the 1989 Revision of the U.S. Certificate of Live Birth (unrevised), and the 2003 Revision of the U.S. Certificate of Live Birth (revised).
U Includes data based on the 1989 Revision of the U.S. Certificate of Live Birth; excludes data based on the 2003 Revision.
R Includes data based on the 2003 Revision of the U.S. Certificate of Live Birth; excludes data based on the 1989 Revision.

Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
						GU	Guam
						AS	American Samoa
						MP	Northern Marianas
			Foreign residents			CC	Canada
						MX	Mexico
						CU	Cuba
						YY	Remainder of the world
			Puerto Rico Occurrence			PR	Puerto Rico
						AL-ZZ	Foreign residents: refer to U.S. for specific code structure.
			Virgin Islands Occurrence			VI	Virgin Islands
						AL-ZZ	Foreign residents: refer to U.S. for specific code structure.
			Guam Occurrence			GU	Guam
						AL-WY	U.S. resident. Also considered a resident of Guam.
						PR,VI,AS,	
						MP,ZZ	Foreign residents: refer to U.S. for specific code structure.
1061-1064	4	SMSARFIPD	PMSA/MSA of Residence (FIPS) Primary Metropolitan Statistical Areas and Metropolitan Statistical Areas are those defined by the U.S. Office of Management and Budget (OMB) as of 2000. For New England, the New England County Metropolitan Areas (NECMA) are used. Further back in this document is a list of PMSA's, MSA's, NECMA's, and their component counties.			0000	Nonmetropolitan counties or foreign residents
						0040-9360	Code range
1065	1	CNTRSPPD	Population Size of County of Residence Based on the results of the 2000 Census			0	County of 1,000,000 or more
						1	County of 500,000 to 1,000,000
						2	County of 250,000 to 500,000

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U Includes data based on the 1989 Revision of the U.S. Certificate of Live Birth; excludes data based on the 2003 Revision.
R Includes data based on the 2003 Revision of the U.S. Certificate of Live Birth; excludes data based on the 1989 Revision.

Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
						9	County of less than 250,000
						Z	Foreign residents
1066	1	POPSMASD	PMSA/MSA Population Size of Residence Based on the results of the 2000 Census			1	Area of 250,000 or more
						2	Area of less than 250,000
						9	Nonmetropolitan area
						Z	Foreign residents
1067-1068	2	CMSAD	CMSA of Residence (FIPS) Consolidated Metropolitan Statistical Areas are groupings of certain Primary Metropolitan Statistical Areas and are defined by the U.S. Office of Management and Budget (OMB) as of 2000.				
			All Areas			00	Not a CMSA
			United States Occurrence			07	Boston - Worcester-Lawrence, MA-NH-ME-CT, CMSA
						14	Chicago - Gary-Kenosha, IL-IN-WI, CMSA
						21	Cincinnati - Hamilton, OH-KY-IN, CMSA
						28	Cleveland - Akron, OH, CMSA
						31	Dallas - Fort Worth, TX, CMSA
						34	Denver - Boulder-Greeley, CO, CMSA
						35	Detroit - Ann Arbor-Flint, MI, CMSA
						42	Houston - Galveston-Brazoria, TX, CMSA
						49	Los Angeles -Riverside- Orange County, CA, CMSA
						56	Miami - Fort Lauderdale, FL, CMSA
						63	Milwaukee - Racine, WI, CMSA
						70	New York -Northern New Jersey-Long Island, NY-NJ-CT-PA, CMSA
						77	Philadelphia - Wilmington-Atlantic City, PA-NJ-DE-MD, CMSA
						79	Portland - Salem, OR-WA, CMSA
						82	Sacramento - Yolo, CA, CMSA
						84	San Francisco -Oakland-San Jose, CA, CMSA
						91	Seattle - Tacoma-Bremerton, WA, CMSA
						97	Washington - Baltimore, DC-MD-VA-WV, CMSA
			Puerto Rico Occurrence			87	San Juan -Caguas-Arecibo, PR, CMSA

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U Includes data based on the 1989 Revision of the U.S. Certificate of Live Birth; excludes data based on the 2003 Revision.

R Includes data based on the 2003 Revision of the U.S. Certificate of Live Birth; excludes data based on the 1989 Revision.

Position	Len	Field	Description	Reporting Flag Position	Vers*	Values	Definition
1069	1	HOSPD	Place of Death and Decedent's Status			1 2 3 4 5 6 7 9	Hospital, clinic or Medical Center – Inpatient Hospital, clinic or Medical Center – Outpatient or admitted to Emergency Room Hospital, clinic or Medical Center – Dead on Arrival Decedent's home Hospice facility Nursing home/long term care Other Place of death unknown
1070	1	WEEKDAYD	Day of Week of Death			1 2 3 4 5 6 7 9	Sunday Monday Tuesday Wednesday Thursday Friday Saturday Unknown
1071-1074	4	DTHYR	Data Year			2003	2003
1075-1140	66	FILLER	Filler			Blank	
1141-1142	2	DTHMON	Month of Death			01 02 03 04 05 06 07 08 09 10 11 12	January February March April May June July August September October November December

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U Includes data based on the 1989 Revision of the U.S. Certificate of Live Birth; excludes data based on the 2003 Revision.
R Includes data based on the 2003 Revision of the U.S. Certificate of Live Birth; excludes data based on the 1989 Revision.

Listings of Counties Identified in the Linked Data Set
Vital Statistics Geographic Code Outline Effective With 2000 Data

State	County	State and County Name
01		Alabama
	073	Jefferson
	089	Madison
	097	Mobile
02		Alaska
		Anchorage, coext. with Anchorage city
04		Arizona
	013	Maricopa
	019	Pima
05		Arkansas
	119	Pulaski
06		California
	001	Alameda
	013	Contra Costa
	019	Fresno
	029	Kern
	037	Los Angeles
	053	Monterey
	059	Orange
	065	Riverside
	067	Sacramento
	071	San Bernardino
	073	San Diego
	075	San Francisco, coext. with San Francisco city
	077	San Joaquin
	081	San Mateo
	083	Santa Barbara
	085	Santa Clara
	087	Santa Cruz
	095	Solano
	097	Sonoma
	099	Stanislaus
	107	Tulare
	111	Ventura

Listings of Counties Identified in the Linked Data Set
 Vital Statistics Geographic Code Outline Effective With 2000 Data

State	County	State and County Name
08		Colorado
	001	Adams
	005	Arapahoe
	013	Boulder
	031	Denver, coext. with Denver city
	041	El Paso
	059	Jefferson
	069	Larimer
09		Connecticut
	001	Fairfield
	003	Hartford
	009	New Haven
	011	New London
10		Delaware
	003	New Castle
11		District of Columbia
	001	District of Columbia
12		Florida
	009	Brevard
	011	Broward
	021	Collier
	031	Duval
	033	Escambia
	057	Hillsborough
	071	Lee
	081	Manatee
	083	Marion
	086	Miami-Dade
	095	Orange
	099	Palm Beach
	101	Pasco
	103	Pinellas
	105	Polk
	115	Sarasota
	117	Seminole
	127	Volusia

Listings of Counties Identified in the Linked Data Set
 Vital Statistics Geographic Code Outline Effective With 2000 Data

State	County	State and County Name
13		Georgia
	067	Cobb
	089	De Kalb
	121	Fulton
	135	Gwinnett
15		Hawaii
	003	Honolulu
16		Idaho
	001	Ada
17		Illinois
	031	Cook
	043	Du Page
	089	Kane
	097	Lake
	111	McHenry
	119	Madison
	163	St. Clair
	197	Will
201	Winnebago	
18		Indiana
	003	Allen
	089	Lake
	097	Marion
	141	St. Joseph
19		Iowa
	153	Polk
20		Kansas
	091	Johnson
	173	Sedgwick
21		Kentucky
	067	Fayette, coext. with Lexington-Fayette
	111	Jefferson

Listings of Counties Identified in the Linked Data Set
 Vital Statistics Geographic Code Outline Effective With 2000 Data

State	County	State and County Name
22		Louisiana
	017	Caddo
	033	East Baton Rouge
	051	Jefferson
	071	Orleans, coext. with New Orleans city
23		Maine
	005	Cumberland
24		Maryland
	003	Anne Arundel
	005	Baltimore
	031	Montgomery
	033	Prince George's
	510	Baltimore city
25		Massachusetts
	005	Bristol
	009	Essex
	013	Hampden
	017	Middlesex
	021	Norfolk
	023	Plymouth
	027	Worcester
26		Michigan
	049	Genesee
	065	Ingham
	081	Kent
	099	Macomb
	125	Oakland
	161	Washtenaw
	163	Wayne
27		Minnesota
	003	Anoka
	037	Dakota
	053	Hennepin
	123	Ramsey
28		Mississippi
	049	Hinds

Listings of Counties Identified in the Linked Data Set
 Vital Statistics Geographic Code Outline Effective With 2000 Data

State	County	State and County Name
29		Missouri
	095	Jackson
	183	St. Charles
	189	St. Louis
	510	St. Louis city
30		Montana
31		Nebraska
	055	Douglas
	109	Lancaster
32		Nevada
	003	Clark
	031	Washoe
33		New Hampshire
	011	Hillsborough
	015	Rockingham
34		New Jersey
	001	Atlantic
	003	Bergen
	005	Burlington
	007	Camden
	013	Essex
	015	Gloucester
	017	Hudson
	021	Mercer
	023	Middlesex
	025	Monmouth
	027	Morris
	029	Ocean
	031	Passaic
	035	Somerset
039	Union	
35		New Mexico
	001	Bernalillo

Listings of Counties Identified in the Linked Data Set
 Vital Statistics Geographic Code Outline Effective With 2000 Data

State	County	State and County Name
36		New York
	001	Albany
	027	Dutchess
	029	Erie
	055	Monroe
	059	Nassau
	085	Staten Island borough, Richmond county
	081	Queens borough, Queens county
	061	Manhattan borough, New York county
	047	Brooklyn borough, Kings county
	005	Bronx borough, Bronx county
	067	Onondaga
	071	Orange
	087	Rockland
	103	Suffolk
	119	Westchester
37		North Carolina
	051	Cumberland
	067	Forsyth
	081	Guilford
	119	Mecklenburg
	183	Wake
38		North Dakota
39		Ohio
	017	Butler
	035	Cuyahoga
	049	Franklin
	061	Hamilton
	093	Lorain
	095	Lucas
	099	Mahoning
	113	Montgomery
	151	Stark
	153	Summit
40		Oklahoma
	109	Oklahoma
	143	Tulsa

Listings of Counties Identified in the Linked Data Set
 Vital Statistics Geographic Code Outline Effective With 2000 Data

State	County	State and County Name
41		Oregon
	005	Clackamas
	039	Lane
	047	Marion
	051	Multnomah
	067	Washington
42		Pennsylvania
	003	Allegheny
	011	Berks
	017	Bucks
	029	Chester
	043	Dauphin
	045	Delaware
	049	Erie
	071	Lancaster
	077	Lehigh
	079	Luzerne
	091	Montgomery
	095	Northampton
	101	Philadelphia, coext. with Philadelphia city
	129	Westmoreland
	133	York
44		Rhode Island
	007	Providence
45		South Carolina
	019	Charleston
	045	Greenville
	079	Richland
	083	Spartanburg
46		South Dakota
47		Tennessee
	037	Davidson
	065	Hamilton
	093	Knox
	157	Shelby

Listings of Counties Identified in the Linked Data Set
 Vital Statistics Geographic Code Outline Effective With 2000 Data

State	County	State and County Name
48		Texas
	029	Bexar
	061	Cameron
	085	Collin
	113	Dallas
	121	Denton
	141	El Paso
	157	Fort Bend
	167	Galveston
	201	Harris
	215	Hidalgo
	245	Jefferson
	339	Montgomery
	355	Nueces
	439	Tarrant
	453	Travis
49		Utah
	035	Salt Lake
	049	Utah
51		Virginia
	041	Chesterfield
	059	Fairfax
	087	Henrico
	153	Prince William
	810	Virginia Beach city
53		Washington
	033	King
	053	Pierce
	061	Snohomish
	063	Spokane
55		Wisconsin
	025	Dane
	079	Milwaukee
	133	Waukesha

Listings of Counties Identified in the Linked Data Set
Vital Statistics Geographic Code Outline Effective With 2000 Data

State	County	State and County Name
72		Puerto Rico
	127	San Juan
78		Virgin Islands
66	010	Guam
00	000	Canada
00	000	Cuba
00	000	Mexico
00	000	Remainder of World

Listing of Cities/Places Identified in the Linked Data Set
 Vital Statistics Geographic Code Outline Effective With 2000 Data Page 1

State	FIPS Codes City/Place	State and City/Place Name
AK	03000	Alaska Anchorage
AZ	46000 55000 77000	Arizona Mesa Phoenix Tucson
AR		Arkansas
CA	02000 27000 43000 44000 53000 62000 64000 66000 67000 68000 69000	California Anaheim Fresno Long Beach Los Angeles Oakland Riverside Sacramento San Diego San Francisco San Jose Santa Ana
CO	04000 16000 20000	Colorado Aurora Colorado Springs Denver
CT		Connecticut
DE		Delaware
DC	50000	District of Columbia Washington
FL	35000 45000 71000	Florida Jacksonville Miami Tampa
GA	04000	Georgia Atlanta

Listing of Cities/Places Identified in the Linked Data Set
 Vital Statistics Geographic Code Outline Effective With 2000 Data Page 2

State	City/Place	State and City/Place Name
HI		Hawaii
	17000	Honolulu
ID		Idaho
IL		Illinois
	14000	Chicago
IN		Indiana
	36003	Indianapolis
KS		Kansas
	79000	Wichita
KY		Kentucky
	46027	Lexington-Fayette
	48000	Louisville
LA		Louisiana
	55000	New Orleans
MD		Maryland
	04000	Baltimore
MA		Massachusetts
	07000	Boston
MI		Michigan
	22000	Detroit
MN		Minnesota
	43000	Minneapolis
	58000	St. Paul
MO		Missouri
	38000	Kansas City
	65000	St. Louis
NB		Nebraska
	37000	Omaha
NV		Nevada
	40000	Las Vegas

Listing of Cities/Places Identified in the Linked Data Set
 Vital Statistics Geographic Code Outline Effective With 2000 Data Page 3

State	City/Place	State and City/Place Name
NJ		New Jersey
	51000	Newark
NM		New Mexico
	02000	Albuquerque
NY		New York
	51000	Brooklyn borough, Kings county
	51000	Bronx borough, Bronx county
	11000	Buffalo
	51000	Manhattan borough, New York county
	51000	Queens borough, Queens county
	51000	Staten Island borough, Richmond county
NC		North Carolina
	12000	Charlotte
	55000	Raleigh
OH		Ohio
	15000	Cincinnati
	16000	Cleveland
	18000	Columbus
	77000	Toledo
OK		Oklahoma
	55000	Oklahoma City
	75000	Tulsa, part
	75000	Tulsa, part
OR		Oregon
	59000	Portland
PA		Pennsylvania
	60000	Philadelphia
	61000	Pittsburgh
TN		Tennessee
	48000	Memphis
	52006	Nashville-Davidson

Listing of Cities/Places Identified in the Linked Data Set
 Vital Statistics Geographic Code Outline Effective With 2000 Data Page 4

State	City/Place	State and City/Place Name
TX		Texas
	04000	Arlington
	05000	Austin
	17000	Corpus Christ
	19000	Dallas
	24000	El Paso
	27000	Fort Worth
	35000	Houston
	65000	San Antonio
VA		Virginia
	82000	Virginia Beach
WA		Washington
	63000	Seattle
WI		Wisconsin
	53000	Milwaukee
WY		Wyoming
PR	00000	Puerto Rico
VI	00000	Virgin Islands
GU	00000	Guam
00	00000	Canada
00	00000	Cuba
00	00000	Mexico
00	00000	Remainder of the World

ST: 1 = Subtotal Limited: Sex: 1 = Males; 2 = Females
 Age: 1 = 5 and over; 2 = 10-54; 3 = 28 days and over
 4 = Under 1 year; 5 = 1-4 years; 6 = 1 year and over
 7 = 10 years and over

***** Cause Subtotals are not identified in this file *****

130 S Limited

Recode T Sex Age Cause Title and ICD-10 Codes Included

001	1	Certain infectious and parasitic diseases (A00-B99)
002		Certain intestinal infectious diseases (A00-A08)
003		Diarrhea and gastroenteritis of infectious origin (A09)
004		Tuberculosis (A16-A19)
005		Tetanus (A33,A35)
006		Diphtheria (A36)
007		Whooping cough (A37)
008		Meningococcal infection (A39)
009	3	Septicemia (A40-A41)
010		Congenital syphilis (A50)
011		Gonococcal infection (A54)
012	1	Viral diseases (A80-B34)
013		Acute poliomyelitis (A80)
014		Varicella (chickenpox) (B01)
015		Measles (B05)
016		Human immunodeficiency virus (HIV) disease (B20-B24)
017		Mumps (B26)
018		Other and unspecified viral diseases (A81-B00,B02-B04,B06-B19,B25,B27-B34)
019		Candidiasis (B37)
020		Malaria (B50-B54)
021		Pneumocystosis (B59)
022		All other and unspecified infectious and parasitic diseases (A20-A32,A38,A42-A49,A51-A53,A55-A79,B35-B36,B38-B49,B55-B58,B60-B99)
023	1	Neoplasms (C00-D48)
024	1	Malignant neoplasms (C00-C97)
025		Hodgkin's disease and non-Hodgkin's lymphomas (C81-C85)
026		Leukemia (C91-C95)
027		Other and unspecified malignant neoplasms (C00-C80,C88,C90,C96-C97)
028		In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior (D00-D48)
029	1	Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism (D50-D89)
030		Anemias (D50-D64)
031		Hemorrhagic conditions and other diseases of blood and blood-forming organs (D65-D76)
032		Certain disorders involving the immune mechanism (D80-D89)
033	1	Endocrine, nutritional and metabolic diseases (E00-E88)
034		Short stature, not elsewhere classified (E34.3)
035		Nutritional deficiencies (E40-E64)
036		Cystic fibrosis (E84)
037	3	Volume depletion, disorders of fluid, electrolyte and acid-base balance (E86-E87)
038		All other endocrine, nutritional and metabolic diseases (E00-E32,E34.0-E34.2,E34.4-E34.9,E65-E83,E85,E88)
039	1	Diseases of the nervous system (G00-G98)
040		Meningitis (G00,G03)
041		Infantile spinal muscular atrophy, type I (Werdnig-Hoffman) (G12.0)
042		Infantile cerebral palsy (G80)
043		Anoxic brain damage, not elsewhere classified (G93.1)
044		Other diseases of nervous system (G04,G06-G11,G12.1-G12.9,G20-G72,G81-G92,G93.0,G93.2-G93.9,G95-G98)
045		Diseases of the ear and mastoid process (H60-H93)
046	1	Diseases of the circulatory system (I00-I99)
047		Pulmonary heart disease and diseases of pulmonary circulation (I26-I28)
048		Pericarditis, endocarditis and myocarditis (I30,I33,I40)
049		Cardiomyopathy (I42)
050		Cardiac arrest (I46)
051		Cerebrovascular diseases (I60-I69)
052		All other diseases of circulatory system (I00-I25,I31,I34-I38,I44-I45,I47-I51, I70-I99)
053	1	Diseases of the respiratory system (J00-J98)
054		Acute upper respiratory infections (J00-J06)
055	1	Influenza and pneumonia (J10-J18)

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130 S Limited
 Recode T Sex Age Cause Title and ICD-10 Codes Included

056		Influenza (J10-J11)
057		Pneumonia (J12-J18)
058		Acute bronchitis and acute bronchiolitis (J20-J21)
059		Bronchitis, chronic and unspecified (J40-J42)
060		Asthma (J45-J46)
061		Pneumonitis due to solids and liquids (J69)
062		Other and unspecified diseases of respiratory system (J22,J30-J39,J43-J44,J47-J68,J70-J98)
063	1	Diseases of the digestive system (K00-K92)
064		Gastritis, duodenitis, and noninfective enteritis and colitis (K29,K50-K55)
065		Hernia of abdominal cavity and intestinal obstruction without hernia (K40-K46,K56)
066		All other and unspecified diseases of digestive system (K00-K28,K30-K38,K57-K92)
067	1	Diseases of the genitourinary system (N00-N95)
068		Renal failure and other disorders of kidney (N17-N19,N25,N27)
069		Other and unspecified diseases of genitourinary system (N00-N15,N20-N23,N26,N28-N95)
070	1	Certain conditions originating in the perinatal period (P00-P96)
071	1	Newborn affected by maternal factors and by complications of pregnancy, labor and delivery (P00-P04)
072		Newborn affected by maternal hypertensive disorders (P00.0)
073		Newborn affected by other maternal conditions which may be unrelated to present pregnancy (P00.1-P00.9)
074	1	Newborn affected by maternal complications of pregnancy (P01)
075		Newborn affected by incompetent cervix (P01.0)
076		Newborn affected by premature rupture of membranes (P01.1)
077		Newborn affected by multiple pregnancy (P01.5)
078		Newborn affected by other maternal complications of pregnancy (P01.2-P01.4,P01.6-P01.9)
079	1	Newborn affected by complications of placenta, cord and membranes (P02)
080		Newborn affected by complications involving placenta (P02.0-P02.3)
081		Newborn affected by complications involving cord (P02.4-P02.6)
082		Newborn affected by chorioamnionitis (P02.7)
083		Newborn affected by other and unspecified abnormalities of membranes (P02.8-P02.9)
084		Newborn affected by other complications of labor and delivery (P03)
085		Newborn affected by noxious influences transmitted via placenta or breast milk (P04)
086	1	Disorders related to length of gestation and fetal malnutrition (P05-P08)
087		Slow fetal growth and fetal malnutrition (P05)
088	1	Disorders related to short gestation and low birthweight, not elsewhere classified (P07)
089		Extremely low birthweight or extreme immaturity (P07.0,P07.2)
090		Other low birthweight or preterm (P07.1,P07.3)
091		Disorders related to long gestation and high birthweight (P08)
092		Birth trauma (P10-P15)
093	1	Intrauterine hypoxia and birth asphyxia (P20-P21)
094		Intrauterine hypoxia (P20)
095		Birth asphyxia (P21)
096		Respiratory distress of newborn (P22)
097	1	Other respiratory conditions originating in the perinatal period (P23-P28)
098		Congenital pneumonia (P23)
099		Neonatal aspiration syndromes (P24)
100		Interstitial emphysema and related conditions originating in the perinatal period (P25)
101		Pulmonary hemorrhage originating in the perinatal period (P26)
102		Chronic respiratory disease originating in the perinatal period (P27)
103		Atelectasis (P28.0-P28.1)
104		All other respiratory conditions originating in the perinatal period (P28.2-P28.9)
105	1	Infections specific to the perinatal period (P35-P39)
106		Bacterial sepsis of newborn (P36)
107		Omphalitis of newborn with or without mild hemorrhage (P38)

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***** Cause Subtotals are not identified in this file *****

130 S Limited
Recode T Sex Age Cause Title and ICD-10 Codes Included

- 108 All other infections specific to the perinatal period (P35,P37,P39)
109 1 Hemorrhagic and hematological disorders of newborn (P50-P61)
110 Neonatal hemorrhage (P50-P52,P54)
111 Hemorrhagic disease of newborn (P53)
112 Hemolytic disease of newborn due to isoimmunization and other perinatal jaundice (P55-P59)
113 Hematological disorders (P60-P61)
114 Syndrome of infant of a diabetic mother and neonatal diabetes mellitus (P70.0-P70.2)
115 Necrotizing enterocolitis of newborn (P77)
116 Hydrops fetalis not due to hemolytic disease (P83.2)
117 Other perinatal conditions (P29,P70.3-P70.9,P71-P76,P78-P81,P83.0-P83.1,P83.3-P83.9,P90-P96)
118 1 Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)
119 Anencephaly and similar malformations (Q00)
120 Congenital hydrocephalus (Q03)
121 Spina bifida (Q05)
122 Other congenital malformations of nervous system (Q01-Q02,Q04,Q06-Q07)
123 Congenital malformations of heart (Q20-Q24)
124 Other congenital malformations of circulatory system (Q25-Q28)
125 Congenital malformations of respiratory system (Q30-Q34)
126 Congenital malformations of digestive system (Q35-Q45)
127 Congenital malformations of genitourinary system (Q50-Q64)
128 Congenital malformations and deformations of musculoskeletal system, limbs and integument (Q65-Q85)
129 Down's syndrome (Q90)
130 Edward's syndrome (Q91.0-Q91.3)
131 Patau's syndrome (Q91.4-Q91.7)
132 Other congenital malformations and deformations (Q10-Q18,Q86-Q89)
133 Other chromosomal abnormalities, not elsewhere classified (Q92-Q99)
134 1 Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)
135 Sudden infant death syndrome (R95)
136 Other symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R53,R55-R94,R96-R99)
137 All other diseases (Residual) (F01-F99,H00-H57,L00-M99)
138 1 External causes of mortality (*U01,V01-Y84)
139 1 Accidents (unintentional injuries) (V01-X59)
140 1 Transport accidents (V01-V99)
141 Motor vehicle accidents (V02-V04,V09.0,V09.2,V12-V14,V19.0-V19.2,V19.4-V19.6,V20-V79,V80.3-V80.5,V81.0-V81.1,V82.0-V82.1,V83-V86,V87.0-V87.8,V88.0-V88.8,V89.0,V89.2)
142 Other and unspecified transport accidents (V01,V05-V06,V09.1,V09.3-V09.9,V10-V11,V15-V18,V19.3,V19.8-V19.9,V80.0-V80.2,V80.6-V80.9,V81.2-V81.9,V82.2-V82.9,V87.9,V88.9,V89.1,V89.3,V89.9,V90-V99)
143 Falls (W00-W19)
144 Accidental discharge of firearms (W32-W34)
145 Accidental drowning and submersion (W65-W74)
146 Accidental suffocation and strangulation in bed (W75)
147 Other accidental suffocation and strangulation (W76-W77,W81-W84)
148 Accidental inhalation and ingestion of food or other objects causing obstruction of respiratory tract (W78-W80)
149 Accidents caused by exposure to smoke, fire and flames (X00-X09)
150 Accidental poisoning and exposure to noxious substances (X40-X49)
151 Other and unspecified accidents (W20-W31,W35-W64,W85-W99,X10-X39,X50-X59)
152 1 Assault (homicide) (*U01,X85-Y09)
153 Assault (homicide) by hanging, strangulation and suffocation (X91)
154 Assault (homicide) by discharge of firearms (*U01.4,X93-X95)
155 Neglect, abandonment and other maltreatment syndromes (Y06-Y07)
156 Assault (homicide) by other and unspecified means (*U01.0-*U01.3,*U01.5-*U01.9,X85-X90,X92,X96-X99,Y00-Y05,Y08-Y09)
157 Complications of medical and surgical care (Y40-Y84)

Documentation Table 1. Live births and infant deaths by state of occurrence of birth and by state of residence at birth United States, Puerto Rico, Virgin Islands, and Guam, 2003 Link Birth Cohort Data.

(Residence of birth is of the mother)

State	Live births		Infant deaths			
	Occurrence	Residence	Unweighted Occurrence	Unweighted Residence	Weighted 1/ Occurrence	Weighted 1/ Residence
United States /2	4096151	4090007	27843	27826	28132	28115
Alabama	58415	59552	519	525	519	525
Alaska	9991	10086	63	68	64	69
Arizona	91061	90967	600	597	604	601
Arkansas	37127	37784	313	343	314	344
California	541835	540997	2739	2739	2810	2810
Colorado	69525	69339	439	433	441	435
Connecticut	43510	42873	238	239	238	239
Delaware	12120	11329	116	108	116	108
Dist of Columbia	14637	7619	142	80	143	80
Florida	212313	212250	1571	1561	1571	1561
Georgia	137275	135980	1175	1160	1176	1161
Hawaii	18139	18100	135	134	135	134
Idaho	21290	21800	129	132	130	133
Illinois	179082	182495	1338	1396	1359	1417
Indiana	87115	86434	662	669	669	676
Iowa	38401	38174	184	203	184	203
Kansas	40326	39476	248	257	248	257
Kentucky	53417	55238	350	377	351	378
Louisiana	65309	65047	608	591	632	614
Maine	13662	13855	64	67	64	67
Maryland	70783	74930	559	610	562	613
Massachusetts	81308	80184	383	380	388	385
Michigan	129895	131100	1097	1104	1097	1104
Minnesota	69999	70050	338	323	339	324
Mississippi	41291	42380	442	460	445	463
Missouri	77878	77045	693	631	693	631
Montana	11417	11422	70	70	71	71
Nebraska	26079	25917	154	148	154	148
Nevada	33205	33647	193	186	193	186
New Hampshire	13872	14393	46	58	47	59
New Jersey	113852	116984	613	629	630	645
New Mexico	27320	27822	150	160	152	162
New York	130578	133897	779	792	795	808
New York City	124344	119817	763	749	763	750
North Carolina	119006	118323	976	980	977	981
North Dakota	9191	7972	56	56	56	56
Ohio	150037	149691	1159	1149	1167	1157
Oklahoma	49862	50988	380	388	385	393
Oregon	46845	45953	272	251	273	252
Pennsylvania	145956	145960	1099	1080	1106	1087
Rhode Island	13824	13209	100	86	100	86
South Carolina	53376	55649	443	480	444	481
South Dakota	11503	11027	78	68	78	68
Tennessee	84014	78890	828	736	829	737
Texas	383227	377495	2410	2412	2484	2486
Utah	51064	49860	266	251	266	251
Vermont	6290	6589	41	38	42	39
Virginia	98991	101254	763	786	764	787
Washington	80012	80489	435	449	439	453
West Virginia	21481	20935	163	155	163	155
Wisconsin	68893	70040	435	447	436	448
Wyoming	6208	6700	26	35	26	35
Foreign Residents	-	6144	-	17	-	17
Puerto Rico	477	471	477	471	477	471
Virgin Islands	10	11	10	11	10	11
Guam	38	38	38	38	38	38

1/ Figures are based on weighted data rounded to the nearest infant, so categories may not add to totals

2/ Excludes data for Puerto Rico, Virgin Islands and Guam.

Documentation Table 2

Live births, infant deaths, and infant mortality rates by race of mother, sex and birthweight of child: United States, 2003
birth cohort data

[Infant deaths weighted. Rates are per 1000 live births]

Race of mother and sex	Total	<500 grams	500-749 grams	750-999 grams	1000-1249 grams	1250-1499 grams	1500-1999 grams	2000-2499 grams	2500 grams or more	Not stated
All races¹										
Both sexes										
Live births.....	4,090,007	7,060	11,515	11,892	13,635	16,403	63,891	201,223	3,763,758	630
Infant deaths.....	28,115	6,110	5,521	1,947	943	771	1,802	2,191	8,668	163
Infant mortality rate.....	6.87	865.44	479.46	163.72	69.16	47.00	28.20	10.89	2.30	258.73
Male										
Live births.....	2,093,564	3,653	5,828	6,187	6,970	8,240	31,111	92,518	1,938,702	355
Infant deaths.....	15,892	3,223	3,189	1,238	560	435	941	1,166	5,029	109
Infant mortality rate.....	7.59	882.29	547.19	200.10	80.34	52.79	30.25	12.60	2.59	307.04
Female										
Live births.....	1,996,443	3,407	5,687	5,705	6,665	8,163	32,780	108,705	1,825,056	275
Infant deaths.....	12,223	2,887	2,332	709	383	336	860	1,025	3,638	54
Infant mortality rate.....	6.12	847.37	410.06	124.28	57.46	41.16	26.24	9.43	1.99	196.36
White										
Both sexes										
Live births.....	3,225,890	4,035	6,840	7,515	8,952	11,287	44,495	141,446	3,000,852	468
Infant deaths.....	18,506	3,507	3,349	1,262	620	529	1,247	1,560	6,325	106
Infant mortality rate.....	5.74	869.14	489.62	167.93	69.26	46.87	28.03	11.03	2.11	226.50
Male										
Live births.....	1,652,166	2,080	3,480	3,945	4,638	5,672	21,800	65,456	1,544,839	256
Infant deaths.....	10,480	1,840	1,944	805	370	305	636	848	3,664	67
Infant mortality rate.....	6.34	884.62	558.62	204.06	79.78	53.77	29.17	12.96	2.37	261.72
Female										
Live births.....	1,573,724	1,955	3,360	3,570	4,314	5,615	22,695	75,990	1,456,013	212
Infant deaths.....	8,026	1,668	1,405	457	251	224	611	711	2,661	39
Infant mortality rate.....	5.10	853.20	418.15	128.01	58.18	39.89	26.92	9.36	1.83	183.96
Black										
Both sexes										
Live births.....	599,860	2,705	4,159	3,753	3,970	4,271	15,673	46,072	519,127	130
Infant deaths.....	8,167	2,335	1,911	576	276	194	441	534	1,848	52
Infant mortality rate.....	13.61	863.22	459.49	153.48	69.52	45.42	28.14	11.59	3.56	400.00
Male										
Live births.....	305,215	1,420	2,059	1,898	1,982	2,119	7,372	20,578	267,701	86
Infant deaths.....	4,616	1,255	1,088	362	167	103	249	266	1,086	41
Infant mortality rate.....	15.12	883.80	528.41	190.73	84.26	48.61	33.78	12.93	4.06	476.74
Female										
Live births.....	294,645	1,285	2,100	1,855	1,988	2,152	8,301	25,494	251,426	44
Infant deaths.....	3,552	1,080	824	213	109	92	192	268	762	11
Infant mortality rate.....	12.06	840.47	392.38	114.82	54.83	42.75	23.13	10.51	3.03	*

¹/ Includes races other than white and black.

Documentation Table 3

Live births, infant deaths, and infant mortality rates by birthweight, race of mother, and gestational age:
United states, 2003 birth cohort data

[Infant deaths weighted. Rates are per 1000 live births]

Birthweight	Gestation									
	Total	<28 Weeks	28-31 Weeks	32-33 Weeks	34-36 Weeks	37-39 Weeks	40 Weeks	41 Weeks	42 Weeks or more	Not Stated
All races ¹										
Total										
Live births	4,090,007	30,088	49,545	63,452	355,950	2,097,773	807,157	383,620	258,553	43,869
Infant deaths	28,115	12,659	2,358	1,041	2,554	5,543	1,670	831	742	717
Infant mortality rate	6.87	420.73	47.59	16.41	7.18	2.64	2.07	2.17	2.87	16.34
Less than 2,500 grams										
Live births	325,619	29,167	38,055	41,745	107,081	82,550	11,320	5,233	6,207	4,261
Infant deaths	19,284	12,632	2,259	867	1,485	1,194	220	92	129	408
Infant mortality rate	59.22	433.09	59.36	20.77	13.87	14.46	19.43	17.58	20.78	95.75
Less than 500 grams										
Live births	7,060	6,609	247	14	14	2	3	1	1	169
Infant deaths	6,110	5,800	159	8	10	2	3	1	1	126
Infant mortality rate	865.44	877.59	643.72	*	*	*	*	*	*	745.56
500-749 grams										
Live births	11,515	9,759	1,354	73	55	21	3	2	4	244
Infant deaths	5,521	4,925	425	22	16	11	1	-	2	118
Infant mortality rate	479.46	504.66	313.88	301.37	*	*	*	*	*	483.61
750-999 grams										
Live births	11,892	7,246	3,825	298	135	112	32	14	15	215
Infant deaths	1,947	1,395	413	40	24	14	-	-	5	55
Infant mortality rate	163.72	192.52	107.97	134.23	177.78	*	-	*	*	255.81
1,000-1,249 grams										
Live births	13,635	3,072	7,468	1,478	781	360	134	58	82	202
Infant deaths	943	318	393	91	63	36	11	5	6	20
Infant mortality rate	69.16	103.52	52.62	61.57	80.67	100.00	*	*	*	99.01
1,250-1,499 grams										
Live births	16,403	880	8,666	3,423	2,098	721	163	73	131	248
Infant deaths	771	86	367	116	108	52	14	5	5	17
Infant mortality rate	47.00	97.73	42.35	33.89	51.48	72.12	*	*	*	*
1,500-1,999 grams										
Live births	63,891	978	12,291	18,821	21,176	7,422	1,097	470	794	842
Infant deaths	1,802	86	384	370	493	322	57	23	30	37
Infant mortality rate	28.20	87.93	31.24	19.66	23.28	43.38	51.96	48.94	37.78	43.94
2,000-2,499 grams										
Live births	201,223	623	4,204	17,638	82,822	73,912	9,888	4,615	5,180	2,341
Infant deaths	2,191	22	118	219	770	757	134	57	79	34
Infant mortality rate	10.89	35.31	28.07	12.42	9.30	10.24	13.55	12.35	15.25	14.52
2,500-2,999 grams										
Live births	711,351	921	4,179	9,253	119,032	412,699	87,737	37,097	32,933	7,500
Infant deaths	3,022	27	62	87	639	1,503	330	166	147	61
Infant mortality rate	4.25	29.32	14.84	9.40	5.37	3.64	3.76	4.47	4.46	8.13
3,000-3,499 grams										
Live births	1,558,404	-	4,842	7,993	88,083	888,785	314,602	137,858	100,030	16,211
Infant deaths	3,361	-	25	62	305	1,771	599	293	261	44
Infant mortality rate	2.16	-	5.16	7.76	3.46	1.99	1.90	2.13	2.61	2.71

See footnotes at end of table.

Documentation Table 3

Live births, infant deaths, and infant mortality rates by birthweight, race of mother, and gestational age:
United states, 2003 birth cohort data

[Infant deaths weighted. Rates are per 1000 live births]-Cont

Birthweight	Gestation									
	Total	<28 Weeks	28-31 Weeks	32-33 Weeks	34-36 Weeks	37-39 Weeks	40 Weeks	41 Weeks	42 Weeks or more	Not Stated
All races ¹										
3,500-3,999 grams										
Live births	1,132,005	-	2,469	3,549	33,484	559,684	291,037	143,513	86,913	11,356
Infant deaths	1,732	-	12	18	91	840	384	211	152	23
Infant mortality rate	1.53	-	*	*	2.72	1.50	1.32	1.47	1.75	2.03
4,000-4,499 grams										
Live births	309,849	-	-	769	6,959	132,826	88,339	50,437	27,184	3,335
Infant deaths	421	-	-	5	23	186	111	53	37	5
Infant mortality rate	1.36	-	-	*	3.31	1.40	1.26	1.05	1.36	*
4,500-4,999 grams										
Live births	46,715	-	-	123	1,120	18,905	12,813	8,535	4,720	499
Infant deaths	100	-	-	1	10	34	19	13	14	8
Infant mortality rate	2.14	-	-	*	*	1.80	*	*	*	*
5,000 grams or more										
Live births	5,434	-	-	20	191	2,324	1,309	947	566	77
Infant deaths	32	-	-	1	1	14	7	3	2	4
Infant mortality rate	5.89	-	-	*	*	*	*	*	*	*
Not stated										
Live births	630	-	-	-	-	-	-	-	-	630
Infant deaths	163	-	-	-	-	-	-	-	-	163
Infant mortality rate	258.73	-	-	-	-	-	-	-	-	258.73
White										
Total										
Live births	3,225,890	17,983	34,155	45,774	267,463	1,659,140	648,700	311,122	206,544	35,009
Infant deaths	18,506	7,539	1,562	718	1,812	3,997	1,223	604	544	507
Infant mortality rate	5.74	419.23	45.73	15.69	6.77	2.41	1.89	1.94	2.63	14.48
Less than 2,500 grams										
Live births	224,570	17,412	26,083	30,084	76,219	56,257	7,596	3,584	4,286	3,049
Infant deaths	12,075	7,520	1,486	588	1,032	862	150	55	89	293
Infant mortality rate	53.77	431.89	56.97	19.55	13.54	15.32	19.75	15.35	20.77	96.10
Less than 500 grams										
Live births	4,035	3,741	159	9	8	1	2	1	-	114
Infant deaths	3,507	3,298	102	7	6	1	2	1	-	90
Infant mortality rate	869.14	881.58	641.51	*	*	*	*	*	-	789.47
500-749 grams										
Live births	6,840	5,709	851	47	33	19	1	2	3	175
Infant deaths	3,349	2,983	252	14	7	11	-	-	2	79
Infant mortality rate	489.62	522.51	296.12	*	*	*	*	*	*	451.43
750-999 grams										
Live births	7,515	4,492	2,444	211	89	83	27	7	9	153
Infant deaths	1,262	897	267	28	18	7	-	-	2	42
Infant mortality rate	167.93	199.69	109.25	132.70	*	*	-	*	*	274.51
1,000-1,249 grams										
Live births	8,952	1,949	4,959	984	503	238	91	34	54	140
Infant deaths	620	213	265	51	39	27	7	3	3	12
Infant mortality rate	69.26	109.29	53.44	51.83	77.53	113.45	*	*	*	*

See footnotes at end of table.

Documentation Table 3

Live births, infant deaths, and infant mortality rates by birthweight, race of mother, and gestational age:
United states, 2003 birth cohort data

[Infant deaths weighted. Rates are per 1000 live births]-Cont

Birthweight	Gestation									
	Total	<28 Weeks	28-31 Weeks	32-33 Weeks	34-36 Weeks	37-39 Weeks	40 Weeks	41 Weeks	42 Weeks or more	Not Stated
White										
1,250-1,499 grams										
Live births	11,287	541	6,054	2,307	1,467	495	111	43	101	168
Infant deaths	529	52	253	79	78	36	9	3	4	15
Infant mortality rate	46.87	96.12	41.79	34.24	53.17	72.73	*	*	*	*
1,500-1,999 grams										
Live births	44,495	594	8,801	13,377	14,517	5,016	701	322	548	619
Infant deaths	1,247	63	259	252	333	241	37	12	21	30
Infant mortality rate	28.03	106.06	29.43	18.84	22.94	48.05	52.78	*	38.32	48.47
2,000-2,499 grams										
Live births	141,446	386	2,815	13,149	59,602	50,405	6,663	3,175	3,571	1,680
Infant deaths	1,560	14	88	157	551	538	95	36	57	25
Infant mortality rate	11.03	*	31.26	11.94	9.24	10.67	14.26	11.34	15.96	14.88
2,500-2,999 grams										
Live births	511,562	571	2,745	6,473	89,426	295,504	61,672	26,283	23,396	5,492
Infant deaths	2,116	19	49	69	466	1,020	246	109	99	40
Infant mortality rate	4.14	*	17.85	10.66	5.21	3.45	3.99	4.15	4.23	7.28
3,000-3,499 grams										
Live births	1,221,031	-	3,410	5,754	68,119	700,077	245,010	107,815	77,890	12,956
Infant deaths	2,429	-	18	42	223	1,291	417	219	188	31
Infant mortality rate	1.99	-	*	7.30	3.27	1.84	1.70	2.03	2.41	2.39
3,500-3,999 grams										
Live births	952,131	-	1,917	2,724	26,942	472,804	244,650	120,810	72,667	9,617
Infant deaths	1,335	-	9	15	63	638	299	165	125	20
Infant mortality rate	1.40	-	*	*	2.34	1.35	1.22	1.37	1.72	2.08
4,000-4,499 grams										
Live births	270,283	-	-	621	5,684	115,978	77,215	44,238	23,636	2,911
Infant deaths	338	-	-	3	18	150	90	42	30	5
Infant mortality rate	1.25	-	-	*	*	1.29	1.17	0.95	1.27	*
4,500-4,999 grams										
Live births	41,179	-	-	102	918	16,551	11,423	7,563	4,174	448
Infant deaths	82	-	-	1	8	27	15	12	11	7
Infant mortality rate	1.99	-	-	*	*	1.63	*	*	*	*
5,000 grams or more										
Live births	4,666	-	-	16	155	1,969	1,134	829	495	68
Infant deaths	24	-	-	1	1	9	6	1	2	4
Infant mortality rate	5.14	-	-	*	*	*	*	*	*	*
Not stated										
Live births	468	-	-	-	-	-	-	-	-	468
Infant deaths	106	-	-	-	-	-	-	-	-	106
Infant mortality rate	226.50	-	-	-	-	-	-	-	-	226.50
Black										
Total										
Live births	599,860	10,685	12,789	14,219	67,417	299,385	106,021	48,803	36,235	4,306
Infant deaths	8,167	4,528	688	256	584	1,240	355	185	164	168
Infant mortality rate	13.61	423.77	53.80	18.00	8.66	4.14	3.35	3.79	4.53	39.02

See footnotes at end of table.

Documentation Table 3

Live births, infant deaths, and infant mortality rates by birthweight, race of mother, and gestational age:
United states, 2003 birth cohort data

[Infant deaths weighted. Rates are per 1000 live births]-Cont

Birthweight	Gestation									
	Total	<28 Weeks	28-31 Weeks	32-33 Weeks	34-36 Weeks	37-39 Weeks	40 Weeks	41 Weeks	42 Weeks or more	Not Stated
Black										
Less than 2,500 grams										
Live births	80,603	10,377	10,118	9,494	24,177	19,916	2,903	1,303	1,539	776
Infant deaths	6,267	4,519	668	225	364	281	58	32	30	89
Infant mortality rate	77.75	435.48	66.02	23.70	15.06	14.11	19.98	24.56	19.49	114.69
Less than 500 grams										
Live births	2,705	2,577	72	4	6	1	1	-	1	43
Infant deaths	2,335	2,249	49	1	4	1	1	-	1	29
Infant mortality rate	863.22	872.72	680.56	*	*	*	*	-	*	674.42
500-749 grams										
Live births	4,159	3,617	444	23	21	2	2	-	1	49
Infant deaths	1,911	1,708	156	7	9	-	1	-	-	30
Infant mortality rate	459.49	472.21	351.35	*	*	*	*	-	*	612.24
750-999 grams										
Live births	3,753	2,393	1,183	63	33	25	4	4	6	42
Infant deaths	576	424	118	9	5	7	-	-	3	9
Infant mortality rate	153.48	177.18	99.75	*	*	*	*	*	*	*
1,000-1,249 grams										
Live births	3,970	968	2,153	394	232	105	31	20	24	43
Infant deaths	276	90	118	30	17	8	3	1	2	7
Infant mortality rate	69.52	92.98	54.81	76.14	*	*	*	*	*	*
1,250-1,499 grams										
Live births	4,271	296	2,193	934	522	186	38	27	25	50
Infant deaths	194	24	97	27	25	12	5	2	1	1
Infant mortality rate	45.42	81.08	44.23	28.91	47.89	*	*	*	*	*
1,500-1,999 grams										
Live births	15,673	332	2,912	4,451	5,242	1,935	326	123	203	149
Infant deaths	441	19	102	95	125	62	16	9	6	6
Infant mortality rate	28.14	*	35.03	21.34	23.85	32.04	*	*	*	*
2,000-2,499 grams										
Live births	46,072	194	1,161	3,625	18,121	17,662	2,501	1,129	1,279	400
Infant deaths	534	5	28	55	178	190	32	20	17	7
Infant mortality rate	11.59	*	24.12	15.17	9.82	10.76	12.79	17.71	*	*
2,500-2,999 grams										
Live births	143,252	308	1,167	2,221	22,406	82,745	18,491	7,784	7,134	996
Infant deaths	730	8	12	12	132	391	69	45	42	17
Infant mortality rate	5.10	*	*	*	5.89	4.73	3.73	5.78	5.89	*
3,000-3,499 grams										
Live births	228,445	-	1,099	1,767	14,972	126,996	46,464	20,263	15,471	1,413
Infant deaths	740	-	5	15	61	380	147	60	63	8
Infant mortality rate	3.24	-	*	*	4.07	2.99	3.16	2.96	4.07	*
3,500-3,999 grams										
Live births	117,937	-	405	624	4,768	56,991	30,120	14,798	9,465	766
Infant deaths	301	-	2	3	21	151	65	37	20	1
Infant mortality rate	2.55	-	*	*	4.40	2.65	2.16	2.50	2.11	*

See footnotes at end of table.

Documentation Table 3

Live births, infant deaths, and infant mortality rates by birthweight, race of mother, and gestational age:
United states, 2003 birth cohort data

[Infant deaths weighted. Rates are per 1000 live births]-Cont

Birthweight	Gestation									
	Total	<28 Weeks	28-31 Weeks	32-33 Weeks	34-36 Weeks	37-39 Weeks	40 Weeks	41 Weeks	42 Weeks or more	Not Stated
Black										
4,000-4,499 grams										
Live births	25,443	-	-	97	929	10,972	7,027	3,970	2,247	201
Infant deaths	57	-	-	1	4	26	12	8	6	-
Infant mortality rate	2.24	-	-	*	*	2.37	*	*	*	-
4,500-4,999 grams										
Live births	3,546	-	-	13	138	1,529	901	610	333	22
Infant deaths	13	-	-	-	2	5	3	1	2	-
Infant mortality rate	*	-	-	*	*	*	*	*	*	-
5,000 grams or more										
Live births	504	-	-	3	27	236	115	75	46	2
Infant deaths	6	-	-	-	-	5	-	1	-	-
Infant mortality rate	*	-	-	*	-	*	-	*	-	*
Not stated										
Live births	130	-	-	-	-	-	-	-	-	130
Infant deaths	52	-	-	-	-	-	-	-	-	52
Infant mortality rate	400.00	-	-	-	-	-	-	-	-	400.00

-/ Quantity zero.

*Figure does not meet standard of reliability or precision; see Technical notes.

¹/ Includes races other than white and black.

Documentation Table 4

Live births, infant deaths, and infant mortality rates by birthweight, race of mother, and age at death: United states, 2003 birth cohort data

[Infant deaths are weighted. Infant deaths are under 1 year. Neonatal deaths are under 28 days; early neonatal, 0-6 days; late neonatal, 7-27 days; and postneonatal, 28 days through 11 months. Rates are per 1000 live births]

Birthweight and race of mother	Live		Total	Early	Late	Post-
	Births	Infant	Neonatal	Neonatal	Neonatal	Neonatal
All races¹						
Total (all birthweights).....	4,090,007	28,115	18,941	15,136	3,805	9,174
Rate.....		6.87	4.63	3.70	0.93	2.24
Less than 2,500 grams.....	325,619	19,284	15,766	13,247	2,519	3,518
Rate.....		59.22	48.42	40.68	7.74	10.80
Less than 500 grams.....	7,060	6,110	5,969	5,795	175	141
Rate.....		865.44	845.47	820.82	24.79	19.97
500-749 grams.....	11,515	5,521	4,759	3,875	885	761
Rate.....		479.46	413.29	336.52	76.86	66.09
750-999 grams.....	11,892	1,947	1,446	971	475	501
Rate.....		163.72	121.59	81.65	39.94	42.13
1,000-1,249 grams.....	13,635	943	714	492	222	229
Rate.....		69.16	52.37	36.08	16.28	16.80
1,250-1,499 grams.....	16,403	771	548	411	137	222
Rate.....		47.00	33.41	25.06	8.35	13.53
1,500-1,999 grams.....	63,891	1,802	1,184	922	262	618
Rate.....		28.20	18.53	14.43	4.10	9.67
2,000-2,499 grams.....	201,223	2,191	1,145	782	364	1,045
Rate.....		10.89	5.69	3.89	1.81	5.19
2,500-2,999 grams.....	711,351	3,022	1,145	698	447	1,877
Rate.....		4.25	1.61	0.98	0.63	2.64
3,000-3,499 grams.....	1,558,404	3,361	1,145	622	523	2,216
Rate.....		2.16	0.73	0.40	0.34	1.42
3,500-3,999 grams.....	1,132,005	1,732	519	284	235	1,213
Rate.....		1.53	0.46	0.25	0.21	1.07
4,000-4,499 grams.....	309,849	421	146	89	57	275
Rate.....		1.36	0.47	0.29	0.18	0.89
4,500-4,999 grams.....	46,715	100	48	30	18	52
Rate.....		2.14	1.03	0.64	*	1.11
5,000 grams or more.....	5,434	32	20	16	4	12
Rate.....		5.89	3.68	*	*	*
Not stated.....	630	163	152	150	2	11
Rate.....		258.73	241.27	238.10	*	*

See footnotes at end of table.

Documentation Table 4

Live births, infant deaths, and infant mortality rates by birthweight, race of mother, and age at death: United states, 2003 birth cohort data -Cont

[Infant deaths are weighted. Infant deaths are under 1 year. Neonatal deaths are under 28 days; early neonatal, 0-6 days; late neonatal, 7-27 days; and postneonatal, 28 days through 11 months. Rates are per 1000 live births]

Birthweight and race of mother	Live		Total	Early	Late	Post-
	Births	Infant	Neonatal	Neonatal	Neonatal	Neonatal
White						
Total (all birthweights).....	3,225,890	18,506	12,461	9,966	2,495	6,045
Rate.....		5.74	3.86	3.09	0.77	1.87
Less than 2,500 grams.....	224,570	12,075	10,040	8,501	1,539	2,035
Rate.....		53.77	44.71	37.85	6.85	9.06
Less than 500 grams.....	4,035	3,507	3,447	3,363	84	60
Rate.....		869.14	854.28	833.46	20.82	14.87
500-749 grams.....	6,840	3,349	2,963	2,483	480	385
Rate.....		489.62	433.19	363.01	70.18	56.29
750-999 grams.....	7,515	1,262	991	673	318	271
Rate.....		167.93	131.87	89.55	42.32	36.06
1,000-1,249 grams.....	8,952	620	503	359	143	118
Rate.....		69.26	56.19	40.10	15.97	13.18
1,250-1,499 grams.....	11,287	529	398	303	95	131
Rate.....		46.87	35.26	26.85	8.42	11.61
1,500-1,999 grams.....	44,495	1,247	860	694	166	388
Rate.....		28.03	19.33	15.60	3.73	8.72
2,000-2,499 grams.....	141,446	1,560	878	625	252	682
Rate.....		11.03	6.21	4.42	1.78	4.82
2,500-2,999 grams.....	511,562	2,116	861	545	316	1,255
Rate.....		4.14	1.68	1.07	0.62	2.45
3,000-3,499 grams.....	1,221,031	2,429	866	474	392	1,563
Rate.....		1.99	0.71	0.39	0.32	1.28
3,500-3,999 grams.....	952,131	1,335	413	233	180	922
Rate.....		1.40	0.43	0.24	0.19	0.97
4,000-4,499 grams.....	270,283	338	125	78	47	213
Rate.....		1.25	0.46	0.29	0.17	0.79
4,500-4,999 grams.....	41,179	82	43	27	16	39
Rate.....		1.99	1.04	0.66	*	0.95
5,000 grams or more.....	4,666	24	16	13	3	8
Rate.....		5.14	*	*	*	*
Not stated.....	468	106	97	95	2	9
Rate.....		226.50	207.26	202.99	*	*

See footnotes at end of table.

Documentation Table 4

Live births, infant deaths, and infant mortality rates by birthweight, race of mother, and age at death: United states, 2003 birth cohort data -Cont

[Infant deaths are weighted. Infant deaths are under 1 year. Neonatal deaths are under 28 days; early neonatal, 0-6 days; late neonatal, 7-27 days; and postneonatal, 28 days through 11 months. Rates are per 1000 live births]

Birthweight and race of mother	Live		Total	Early	Late	Post-
	Births	Infant	Neonatal	Neonatal	Neonatal	Neonatal
Black						
Total (all birthweights).....	599,860	8,167	5,531	4,417	1,113	2,637
Rate.....		13.61	9.22	7.36	1.86	4.40
Less than 2,500 grams.....	80,603	6,267	4,945	4,104	841	1,322
Rate.....		77.75	61.35	50.92	10.43	16.40
Less than 500 grams.....	2,705	2,335	2,262	2,180	82	73
Rate.....		863.22	836.23	805.91	30.31	26.99
500-749 grams.....	4,159	1,911	1,563	1,208	356	348
Rate.....		459.49	375.81	290.45	85.60	83.67
750-999 grams.....	3,753	576	366	240	126	209
Rate.....		153.48	97.52	63.95	33.57	55.69
1,000-1,249 grams.....	3,970	276	176	111	64	101
Rate.....		69.52	44.33	27.96	16.12	25.44
1,250-1,499 grams.....	4,271	194	115	82	33	79
Rate.....		45.42	26.93	19.20	7.73	18.50
1,500-1,999 grams.....	15,673	441	249	167	82	192
Rate.....		28.14	15.89	10.66	5.23	12.25
2,000-2,499 grams.....	46,072	534	214	117	97	320
Rate.....		11.59	4.64	2.54	2.11	6.95
2,500-2,999 grams.....	143,252	730	216	109	106	514
Rate.....		5.10	1.51	0.76	0.74	3.59
3,000-3,499 grams.....	228,445	740	215	106	109	525
Rate.....		3.24	0.94	0.46	0.48	2.30
3,500-3,999 grams.....	117,937	301	81	34	46	220
Rate.....		2.55	0.69	0.29	0.39	1.87
4,000-4,499 grams.....	25,443	57	16	8	8	41
Rate.....		2.24	*	*	*	1.61
4,500-4,999 grams.....	3,546	13	4	3	1	9
Rate.....		*	*	*	*	*
5,000 grams or more.....	504	6	3	2	1	3
Rate.....		*	*	*	*	*
Not stated.....	130	52	50	50	-	2
Rate.....		400.00	384.62	384.62	-	*

See footnotes at end of table.

-/ Quantity zero.

*/Figure does not meet standard of reliability or precision; see Technical notes.

¹/ Includes races other than white and black.

Documentation Table 5

Live births by birthweight and race of mother and infant deaths and infant mortality rates by age of death, birthweight, and race of mother for 10 major causes of infant death: United States, 2003 birth cohort data

[Infant deaths are weighted. Infant deaths are under 1 year. Neonatal deaths are under 28 days; early neonatal, 0-6 days; late neonatal, 7-27 days; and postneonatal, 28 days through 11 months. Rates are per 100,000 live births]

Cause of death, birthweight, and race of mother	Live	Total	Early	Late	Post-	
	Births	Infant	Neonatal	Neonatal	Neonatal	Neonatal
All races ¹						
All birthweights						
All causes	4,090,007	28,115 687.41	18,941 463.10	15,136 370.07	3,805 93.03	9,174 224.30
Congenital malformations (Q00-Q99).....		5,647 138.07	4,038 98.73	3,078 75.26	960 23.47	1,609 39.34
Short gestation and low birthweight nec (P07).....		4,855 118.70	4,752 116.19	4,631 113.23	121 2.96	103 2.52
Sudden infant death syndrome (R95).....		2,190 53.55	198 4.84	31 0.76	167 4.08	1,991 48.68
Maternal complications of pregnancy (P01).....		1,709 41.78	1,694 41.42	1,664 40.68	30 0.73	14 *
Complications of placenta, cord, membranes (P02).....		1,081 26.43	1,075 26.28	1,038 25.38	37 0.90	6 *
Respiratory distress of newborn (P22).....		846 20.68	788 19.27	612 14.96	176 4.30	58 1.42
Accidents (unintentional injuries) (V01-X59).....		1,013 24.77	113 2.76	20 0.49	93 2.27	900 22.00
Bacterial sepsis of newborn (P36).....		764 18.68	733 17.92	320 7.82	413 10.10	31 0.76
Diseases of the circulatory system (I00-I99).....		573 14.01	179 4.38	93 2.27	86 2.10	394 9.63
Intrauterine hypoxia, birth asphyxia (P20-P21).....		553 13.52	510 12.47	387 9.46	122 2.98	43 1.05
All other causes.....		8,885 217.24	4,860 118.83	3,260 79.71	1,600 39.12	4,025 98.41
Less than 2,500 grams						
All causes	325,619	19,284 5,922.26	15,766 4,841.86	13,247 4,068.25	2,519 773.60	3,518 1,080.40
Congenital malformations (Q00-Q99).....		3,377 1,037.10	2,695 827.65	2,234 686.08	461 141.58	682 209.45
Short gestation and low birthweight nec (P07).....		4,751 1,459.07	4,651 1,428.36	4,531 1,391.50	120 36.85	100 30.71
Sudden infant death syndrome (R95).....		439 134.82	32 9.83	3 *	29 8.91	407 124.99
Maternal complications of pregnancy (P01).....		1,644 504.88	1,630 500.59	1,602 491.99	28 8.60	14 *
Complications of placenta, cord, membranes (P02).....		984 302.19	982 301.58	955 293.29	27 8.29	2 *
Respiratory distress of newborn (P22).....		820 251.83	764 234.63	593 182.11	171 52.52	56 17.20
Accidents (unintentional injuries) (V01-X59).....		169 51.90	23 7.06	9 *	14 *	146 44.84
Bacterial sepsis of newborn (P36).....		679 208.53	648 199.01	276 84.76	373 114.55	30 9.21
Diseases of the circulatory system (I00-I99).....		294 90.29	95 29.18	56 17.20	39 11.98	199 61.11

See footnotes at end of table.

Documentation Table 5

Live births by birthweight and race of mother and infant deaths and infant mortality rates by age of death, birthweight, and race of mother for 10 major causes of infant death: United States, 2003 birth cohort data -Cont

[Infant deaths are weighted. Infant deaths are under 1 year. Neonatal deaths are under 28 days; early neonatal, 0-6 days; late neonatal, 7-27 days; and postneonatal, 28 days through 11 months. Rates are per 100,000 live births]

Cause of death, birthweight, and race of mother	Live	Total	Early	Late	Post-	
	Births	Infant	Neonatal	Neonatal	Neonatal	Neonatal
All races¹						
Intrauterine hypoxia, birth asphyxia (P20-P21).....		267 82.00	257 78.93	206 63.26	51 15.66	10 *
All other causes.....		5,860 1,799.65	3,989 1,225.05	2,783 854.68	1,206 370.37	1,871 574.60
2,500 grams or more						
All causes	3,763,758	8,668 230.30	3,023 80.32	1,739 46.20	1,284 34.11	5,645 149.98
Congenital malformations (Q00-Q99).....		2,258 59.99	1,334 35.44	837 22.24	497 13.20	924 24.55
Short gestation and low birthweight nec (P07).....		31 0.82	29 0.77	28 0.74	1 *	2 *
Sudden infant death syndrome (R95).....		1,749 46.47	166 4.41	28 0.74	138 3.67	1,583 42.06
Maternal complications of pregnancy (P01).....		40 1.06	40 1.06	38 1.01	2 *	- -
Complications of placenta, cord, membranes (P02).....		86 2.28	82 2.18	72 1.91	10 *	4 *
Respiratory distress of newborn (P22).....		26 0.69	24 0.64	19 *	5 *	2 *
Accidents (unintentional injuries) (V01-X59).....		844 22.42	90 2.39	11 *	79 2.10	754 20.03
Bacterial sepsis of newborn (P36).....		86 2.28	85 2.26	44 1.17	40 1.06	1 *
Diseases of the circulatory system (I00-I99).....		278 7.39	84 2.23	36 0.96	47 1.25	194 5.15
Intrauterine hypoxia, birth asphyxia (P20-P21).....		280 7.44	246 6.54	175 4.65	71 1.89	33 0.88
All other causes.....		2,990 79.44	844 22.42	450 11.96	394 10.47	2,147 57.04
Not stated birthweight						
All causes	630	163 25,873.02	152 24,126.98	150 23,809.52	2 *	11 *
Congenital malformations (Q00-Q99).....		11 *	9 *	7 *	2 *	2 *
Short gestation and low birthweight nec (P07).....		74 11,746.03	73 11,587.30	73 11,587.30	- -	1 *
Sudden infant death syndrome (R95).....		1 *	- -	- -	- -	1 *
Maternal complications of pregnancy (P01).....		24 3,809.52	24 3,809.52	24 3,809.52	- -	- -
Complications of placenta, cord, membranes (P02).....		11 *	11 *	11 *	- -	- -
Respiratory distress of newborn (P22).....		- -	- -	- -	- -	- -
Accidents (unintentional injuries) (V01-X59).....		- -	- -	- -	- -	- -

See footnotes at end of table.

Documentation Table 5

Live births by birthweight and race of mother and infant deaths and infant mortality rates by age of death, birthweight, and race of mother for 10 major causes of infant death: United States, 2003 birth cohort data -Cont

[Infant deaths are weighted. Infant deaths are under 1 year. Neonatal deaths are under 28 days; early neonatal, 0-6 days; late neonatal, 7-27 days; and postneonatal, 28 days through 11 months. Rates are per 100,000 live births]

Cause of death, birthweight, and race of mother	Live	Total	Early	Late	Post-	
	Births	Infant	Neonatal	Neonatal	Neonatal	Neonatal
All races¹						
Bacterial sepsis of newborn (P36).....		-	-	-	-	-
Diseases of the circulatory system (I00-I99).....		1	1	1	-	-
		*	*	*	-	-
Intrauterine hypoxia, birth asphyxia (P20-P21).....		6	6	6	-	-
		*	*	*	-	-
All other causes.....		34	27	27	-	7
		5,396.83	4,285.71	4,285.71	-	*
White						
All birthweights						
All causes	3,225,890	18,506	12,461	9,966	2,495	6,045
		573.67	386.28	308.94	77.34	187.39
Congenital malformations (Q00-Q99).....		4,309	3,132	2,413	719	1,177
		133.58	97.09	74.80	22.29	36.49
Short gestation and low birthweight nec (P07).....		2,734	2,687	2,619	68	47
		84.75	83.29	81.19	2.11	1.46
Sudden infant death syndrome (R95).....		1,432	135	21	113	1,297
		44.39	4.18	0.65	3.50	40.21
Maternal complications of pregnancy (P01).....		1,076	1,070	1,054	16	6
		33.36	33.17	32.67	*	*
Complications of placenta, cord, membranes (P02).....		733	730	710	20	3
		22.72	22.63	22.01	0.62	*
Respiratory distress of newborn (P22).....		546	509	398	110	37
		16.93	15.78	12.34	3.41	1.15
Accidents (unintentional injuries) (V01-X59).....		701	73	13	59	629
		21.73	2.26	*	1.83	19.50
Bacterial sepsis of newborn (P36).....		473	451	217	234	22
		14.66	13.98	6.73	7.25	0.68
Diseases of the circulatory system (I00-I99).....		361	128	70	58	233
		11.19	3.97	2.17	1.80	7.22
Intrauterine hypoxia, birth asphyxia (P20-P21).....		395	365	281	84	30
		12.24	11.31	8.71	2.60	0.93
All other causes.....		5,745	3,181	2,170	1,012	2,563
		178.09	98.61	67.27	31.37	79.45
Less than 2,500 grams						
All causes	224,570	12,075	10,040	8,501	1,539	2,035
		5,376.94	4,470.77	3,785.46	685.31	906.18
Congenital malformations (Q00-Q99).....		2,545	2,069	1,740	330	475
		1,133.28	921.32	774.81	146.95	211.52
Short gestation and low birthweight nec (P07).....		2,672	2,627	2,560	67	45
		1,189.83	1,169.79	1,139.96	29.83	20.04
Sudden infant death syndrome (R95).....		250	21	2	19	229
		111.32	9.35	*	*	101.97
Maternal complications of pregnancy (P01).....		1,027	1,021	1,007	14	6
		457.32	454.65	448.41	*	*

See footnotes at end of table.

Documentation Table 5

Live births by birthweight and race of mother and infant deaths and infant mortality rates by age of death, birthweight, and race of mother for 10 major causes of infant death: United States, 2003 birth cohort data -Cont

[Infant deaths are weighted. Infant deaths are under 1 year. Neonatal deaths are under 28 days; early neonatal, 0-6 days; late neonatal, 7-27 days; and postneonatal, 28 days through 11 months. Rates are per 100,000 live births]

Cause of death, birthweight, and race of mother	Live	Total	Early	Late	Post-	
	Births	Infant	Neonatal	Neonatal	Neonatal	Neonatal
White						
Complications of placenta, cord, membranes (P02).....	659 293.45	658 293.00	643 286.32	15 *	1 *	
Respiratory distress of newborn (P22).....	523 232.89	488 217.30	380 169.21	107 47.65	35 15.59	
Accidents (unintentional injuries) (V01-X59).....	95 42.30	12 *	5 *	7 *	82 36.51	
Bacterial sepsis of newborn (P36).....	412 183.46	391 174.11	182 81.04	209 93.07	21 9.35	
Diseases of the circulatory system (I00-I99).....	160 71.25	65 28.94	41 18.26	24 10.69	96 42.75	
Intrauterine hypoxia, birth asphyxia (P20-P21).....	169 75.25	164 73.03	133 59.22	31 13.80	5 *	
All other causes.....	3,563 1,586.59	2,525 1,124.37	1,809 805.54	716 318.83	1,039 462.66	
2,500 grams or more						
All causes	3,000,852 210.77	6,325 77.44	2,324 77.44	1,370 45.65	954 31.79	4,001 133.33
Congenital malformations (Q00-Q99).....	1,755 58.48	1,055 35.16	667 22.23	388 12.93	701 23.36	
Short gestation and low birthweight nec (P07).....	18 *	17 *	16 *	1 *	1 *	
Sudden infant death syndrome (R95).....	1,181 39.36	114 3.80	19 *	94 3.13	1,067 35.56	
Maternal complications of pregnancy (P01).....	34 1.13	34 1.13	32 1.07	2 *	- -	
Complications of placenta, cord, membranes (P02).....	67 2.23	65 2.17	60 2.00	5 *	2 *	
Respiratory distress of newborn (P22).....	23 0.77	21 0.70	18 *	3 *	2 *	
Accidents (unintentional injuries) (V01-X59).....	607 20.23	60 2.00	8 *	52 1.73	546 18.19	
Bacterial sepsis of newborn (P36).....	61 2.03	60 2.00	35 1.17	25 0.83	1 *	
Diseases of the circulatory system (I00-I99).....	200 6.66	63 2.10	28 0.93	34 1.13	137 4.57	
Intrauterine hypoxia, birth asphyxia (P20-P21).....	222 7.40	197 6.56	144 4.80	53 1.77	25 0.83	
All other causes.....	2,157 71.88	638 21.26	342 11.40	296 9.86	1,519 50.62	
Not stated birthweight						
All causes	468 22,649.57	106 20,726.50	97 20,299.15	95 20,299.15	2 *	9 *
Congenital malformations (Q00-Q99).....	9 *	8 *	6 *	2 *	1 *	
Short gestation and low birthweight nec (P07).....	44 9,401.71	43 9,188.03	43 9,188.03	- -	1 *	

See footnotes at end of table.

Documentation Table 5

Live births by birthweight and race of mother and infant deaths and infant mortality rates by age of death, birthweight, and race of mother for 10 major causes of infant death: United States, 2003 birth cohort data -Cont

[Infant deaths are weighted. Infant deaths are under 1 year. Neonatal deaths are under 28 days; early neonatal, 0-6 days; late neonatal, 7-27 days; and postneonatal, 28 days through 11 months. Rates are per 100,000 live births]

Cause of death, birthweight, and race of mother	Live	Total	Early	Late	Post-	
	Births	Infant	Neonatal	Neonatal	Neonatal	Neonatal
White						
Sudden infant death syndrome (R95).....		1	-	-	-	1
		*	-	-	-	*
Maternal complications of pregnancy (P01).....		15	15	15	-	-
		*	*	*	-	-
Complications of placenta, cord, membranes (P02).....		7	7	7	-	-
		*	*	*	-	-
Respiratory distress of newborn (P22).....		-	-	-	-	-
		-	-	-	-	-
Accidents (unintentional injuries) (V01-X59).....		-	-	-	-	-
		-	-	-	-	-
Bacterial sepsis of newborn (P36).....		-	-	-	-	-
		-	-	-	-	-
Diseases of the circulatory system (I00-I99).....		1	1	1	-	-
		*	*	*	-	-
Intrauterine hypoxia, birth asphyxia (P20-P21).....		4	4	4	-	-
		*	*	*	-	-
All other causes.....		24	18	18	-	6
		5,128.21	*	*	-	*
Black						
All birthweights						
All causes	599,860	8,167	5,531	4,417	1,113	2,637
		1,361.48	922.05	736.34	185.54	439.60
Congenital malformations (Q00-Q99).....		989	668	478	190	321
		164.87	111.36	79.69	31.67	53.51
Short gestation and low birthweight nec (P07).....		1,879	1,830	1,781	49	49
		313.24	305.07	296.90	8.17	8.17
Sudden infant death syndrome (R95).....		654	60	7	53	593
		109.03	10.00	*	8.84	98.86
Maternal complications of pregnancy (P01).....		567	560	546	13	7
		94.52	93.36	91.02	*	*
Complications of placenta, cord, membranes (P02).....		304	301	284	16	3
		50.68	50.18	47.34	*	*
Respiratory distress of newborn (P22).....		269	247	195	52	21
		44.84	41.18	32.51	8.67	3.50
Accidents (unintentional injuries) (V01-X59).....		268	34	5	29	234
		44.68	5.67	*	4.83	39.01
Bacterial sepsis of newborn (P36).....		261	253	93	160	8
		43.51	42.18	15.50	26.67	*
Diseases of the circulatory system (I00-I99).....		175	42	18	24	133
		29.17	7.00	*	4.00	22.17
Intrauterine hypoxia, birth asphyxia (P20-P21).....		129	116	86	30	13
		21.51	19.34	14.34	5.00	*
All other causes.....		2,674	1,420	924	497	1,254
		445.77	236.72	154.04	82.85	209.05
Less than 2,500 grams						
All causes	80,603	6,267	4,945	4,104	841	1,322
		7,775.14	6,135.01	5,091.62	1,043.39	1,640.14

See footnotes at end of table.

Documentation Table 5

Live births by birthweight and race of mother and infant deaths and infant mortality rates by age of death, birthweight, and race of mother for 10 major causes of infant death: United States, 2003 birth cohort data -Cont

[Infant deaths are weighted. Infant deaths are under 1 year. Neonatal deaths are under 28 days; early neonatal, 0-6 days; late neonatal, 7-27 days; and postneonatal, 28 days through 11 months. Rates are per 100,000 live births]

Cause of death, birthweight, and race of mother	Live	Total	Early	Late	Post-	
	Births	Infant	Neonatal	Neonatal	Neonatal	Neonatal
Black						
Congenital malformations (Q00-Q99).....	636 789.05	466 578.14	363 450.36	103 127.79	170 210.91	
Short gestation and low birthweight nec (P07).....	1,841 2,284.03	1,792 2,223.24	1,743 2,162.45	49 60.79	48 59.55	
Sudden infant death syndrome (R95).....	172 213.39	11 *	1 *	10 *	161 199.74	
Maternal complications of pregnancy (P01).....	554 687.32	547 678.63	534 662.51	13 *	7 *	
Complications of placenta, cord, membranes (P02).....	284 352.34	283 351.10	271 336.22	12 *	1 *	
Respiratory distress of newborn (P22).....	267 331.25	245 303.96	194 240.69	51 63.27	21 26.05	
Accidents (unintentional injuries) (V01-X59).....	70 86.85	11 *	4 *	7 *	59 73.20	
Bacterial sepsis of newborn (P36).....	241 299.00	233 289.07	84 104.21	150 186.10	8 *	
Diseases of the circulatory system (I00-I99).....	118 146.40	27 33.50	13 *	14 *	90 111.66	
Intrauterine hypoxia, birth asphyxia (P20-P21).....	81 100.49	76 94.29	61 75.68	15 *	5 *	
All other causes.....	2,003 2,485.02	1,252 1,553.29	836 1,037.18	416 516.11	751 931.73	
2,500 grams or more						
All causes	519,127	1,848 355.98	535 103.06	263 50.66	272 52.40	1,313 252.92
Congenital malformations (Q00-Q99).....	351 67.61	201 38.72	114 21.96	86 16.57	150 28.89	
Short gestation and low birthweight nec (P07).....	11 *	10 *	10 *	- -	1 *	
Sudden infant death syndrome (R95).....	482 92.85	49 9.44	6 *	43 8.28	433 83.41	
Maternal complications of pregnancy (P01).....	4 *	4 *	4 *	- -	- -	
Complications of placenta, cord, membranes (P02).....	16 *	14 *	10 *	4 *	2 *	
Respiratory distress of newborn (P22).....	2 *	2 *	1 *	1 *	- -	
Accidents (unintentional injuries) (V01-X59).....	198 38.14	23 4.43	1 *	22 4.24	175 33.71	
Bacterial sepsis of newborn (P36).....	19 *	19 *	9 *	10 *	- -	
Diseases of the circulatory system (I00-I99).....	57 10.98	15 *	5 *	10 *	42 8.09	
Intrauterine hypoxia, birth asphyxia (P20-P21).....	46 8.86	38 7.32	23 4.43	15 *	8 *	
All other causes.....	661 127.33	159 30.63	79 15.22	80 15.41	502 96.70	

See footnotes at end of table.

Documentation Table 5

Live births by birthweight and race of mother and infant deaths and infant mortality rates by age of death, birthweight, and race of mother for 10 major causes of infant death: United States, 2003 birth cohort data -Cont

[Infant deaths are weighted. Infant deaths are under 1 year. Neonatal deaths are under 28 days; early neonatal, 0-6 days; late neonatal, 7-27 days; and postneonatal, 28 days through 11 months. Rates are per 100,000 live births]

Cause of death, birthweight, and race of mother	Live	Total	Early	Late	Post-	
	Births	Infant	Neonatal	Neonatal	Neonatal	
Black						
Not stated birthweight						
All causes	130	52	50	50	-	2
		40,000.00	38,461.54	38,461.54	-	*
Congenital malformations (Q00-Q99).....		2	1	1	-	1
		*	*	*	-	*
Short gestation and low birthweight nec (P07).....		27	27	27	-	-
		20,769.23	20,769.23	20,769.23	-	-
Sudden infant death syndrome (R95).....		-	-	-	-	-
		-	-	-	-	-
Maternal complications of pregnancy (P01).....		8	8	8	-	-
		*	*	*	-	-
Complications of placenta, cord, membranes (P02).....		3	3	3	-	-
		*	*	*	-	-
Respiratory distress of newborn (P22).....		-	-	-	-	-
		-	-	-	-	-
Accidents (unintentional injuries) (V01-X59).....		-	-	-	-	-
		-	-	-	-	-
Bacterial sepsis of newborn (P36).....		-	-	-	-	-
		-	-	-	-	-
Diseases of the circulatory system (I00-I99).....		-	-	-	-	-
		-	-	-	-	-
Intrauterine hypoxia, birth asphyxia (P20-P21).....		2	2	2	-	-
		*	*	*	-	-
All other causes.....		10	9	9	-	1
		*	*	*	-	*

-/ Quality zero.

*/Figure does not meet standard of reliability or precision; see Technical notes.

¹/ Includes races other than white and black.

Documentation Table 6. Unlinked infant deaths by race, age at death, and state of residence: United States and each state, 2003 birth cohort data.

[Infant deaths are under 1 year. Neonatal death are under 28 days; early neonatal, 0-6 days; late neonatal, 7-27 days; and postneonatal, 28 days through 11 months. Data in this table is for infant deaths in 2003 that are not included in the linked file because they were not linked with their corresponding birth certificates. See methodology section. Residence is of infant decedent; race is from death certificate]

State and race of child 1/	Infant	Total neonatal	Early neonatal	Late neonatal	Postneonatal
United States /2					
Total	285	-	213	15	57
White	174	-	136	7	31
Black	93	-	63	7	23
Alabama					
Total	1	-	-	-	1
White	1	-	-	-	1
Black	-	-	-	-	-
Alaska					
Total	1	-	-	1	-
White	1	-	-	1	-
Black	-	-	-	-	-
Arizona					
Total	5	-	3	-	2
White	4	-	2	-	2
Black	-	-	-	-	-
Arkansas					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
California					
Total	69	-	54	5	10
White	46	-	36	3	7
Black	15	-	11	1	3
Colorado					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
Connecticut					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
Delaware					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
Dist of Columbia					
Total	1	-	1	-	-
White	-	-	-	-	-
Black	1	-	1	-	-
Florida					
Total	2	-	-	-	2
White	1	-	-	-	1
Black	1	-	-	-	1
Georgia					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
Hawaii					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-

Documentation Table 6. Unlinked infant deaths by race, age at death, and state of residence: United States and each state, 2003 birth cohort data.

[Infant deaths are under 1 year. Neonatal death are under 28 days; early neonatal, 0-6 days; late neonatal, 7-27 days; and postneonatal, 28 days through 11 months. Data in this table is for infant deaths in 2003 that are not included in the linked file because they were not linked with their corresponding birth certificates. See methodology section. Residence is of infant decedent; race is from death certificate]

State and race of child 1/	Infant	Total neonatal	Early neonatal	Late neonatal	Postneonatal
Idaho					
Total	1	-	-	-	1
White	1	-	-	-	1
Black	-	-	-	-	-
Illinois					
Total	25	-	16	1	8
White	14	-	11	-	3
Black	10	-	5	1	4
Indiana					
Total	7	-	5	-	2
White	3	-	3	-	-
Black	4	-	2	-	2
Iowa					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
Kansas					
Total	1	-	-	-	1
White	1	-	-	-	1
Black	-	-	-	-	-
Kentucky					
Total	1	-	1	-	-
White	-	-	-	-	-
Black	1	-	1	-	-
Louisiana					
Total	25	-	19	2	4
White	13	-	12	-	1
Black	12	-	7	2	3
Maine					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
Maryland					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
Massachusetts					
Total	6	-	4	-	2
White	5	-	3	-	2
Black	-	-	-	-	-
Michigan					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
Minnesota					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
Mississippi					
Total	3	-	-	1	2
White	1	-	-	-	1
Black	2	-	-	1	1

Documentation Table 6. Unlinked infant deaths by race, age at death, and state of residence: United States and each state, 2003 birth cohort data.

[Infant deaths are under 1 year. Neonatal death are under 28 days; early neonatal, 0-6 days; late neonatal, 7-27 days; and postneonatal, 28 days through 11 months. Data in this table is for infant deaths in 2003 that are not included in the linked file because they were not linked with their corresponding birth certificates. See methodology section. Residence is of infant decedent; race is from death certificate]

State and race of child 1/	Infant	Total neonatal	Early neonatal	Late neonatal	Postneonatal
Missouri					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
Montana					
Total	1	-	1	-	-
White	1	-	1	-	-
Black	-	-	-	-	-
Nebraska					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
Nevada					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
New Hampshire					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
New Jersey					
Total	17	-	16	-	1
White	8	-	7	-	1
Black	8	-	8	-	-
New Mexico					
Total	2	-	2	-	-
White	1	-	1	-	-
Black	-	-	-	-	-
New York					
Total	9	-	8	-	1
White	5	-	5	-	-
Black	3	-	3	-	-
New York City					
Total	4	-	2	-	2
White	3	-	2	-	1
Black	1	-	-	-	1
North Carolina					
Total	2	-	1	-	1
White	1	-	1	-	-
Black	1	-	-	-	1
North Dakota					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
Ohio					
Total	8	-	5	-	3
White	2	-	1	-	1
Black	6	-	4	-	2
Oklahoma					
Total	8	-	3	1	4
White	6	-	3	-	3
Black	2	-	-	1	1

Documentation Table 6. Unlinked infant deaths by race, age at death, and state of residence: United States and each state, 2003 birth cohort data.

[Infant deaths are under 1 year. Neonatal death are under 28 days; early neonatal, 0-6 days; late neonatal, 7-27 days; and postneonatal, 28 days through 11 months. Data in this table is for infant deaths in 2003 that are not included in the linked file because they were not linked with their corresponding birth certificates. See methodology section. Residence is of infant decedent; race is from death certificate]

State and race of child 1/	Infant	Total neonatal	Early neonatal	Late neonatal	Postneonatal
Oregon					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
Pennsylvania					
Total	6	-	3	-	3
White	2	-	1	-	1
Black	4	-	2	-	2
Rhode Island					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
South Carolina					
Total	1	-	-	-	1
White	1	-	-	-	1
Black	-	-	-	-	-
South Dakota					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
Tennessee					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
Texas					
Total	71	-	64	3	4
White	47	-	43	2	2
Black	20	-	18	1	1
Utah					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
Vermont					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
Virginia					
Total	2	-	1	1	-
White	1	-	-	1	-
Black	1	-	1	-	-
Washington					
Total	5	-	3	-	2
White	4	-	3	-	1
Black	1	-	-	-	1
West Virginia					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
Wisconsin					
Total	1	-	1	-	-
White	1	-	1	-	-
Black	-	-	-	-	-

Documentation Table 6. Unlinked infant deaths by race, age at death, and state of residence:
United States and each state, 2003 birth cohort data.

[Infant deaths are under 1 year. Neonatal death are under 28 days; early neonatal, 0-6 days; late neonatal, 7-27 days; and postneonatal, 28 days through 11 months. Data in this table is for infant deaths in 2003 that are not included in the linked file because they were not linked with their corresponding birth certificates. See methodology section. Residence is of infant decedent; race is from death certificate]

State and race of child 1/	Infant	Total neonatal	Early neonatal	Late neonatal	Postneonatal
Wyoming					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
Puerto Rico					
Total	1	-	1	-	-
White	-	-	-	-	-
Black	1	-	1	-	-
Virgin Islands					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
Guam					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-

1/ Totals for geographic areas include races other than white and black.

2/ Excludes data for foreign residents, Puerto Rico, Virgin Islands and Guam.