

**Public Use
Data File
Documentation**

2009 Cohort Linked Birth/Infant Death Data Set

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Centers for Disease Control and Prevention
National Center for Health Statistics
Division of Vital Statistics

2009 Cohort Linked Birth/Infant Death Data Set

Contents

Introduction, Methodology, and Classification of Data

File and data characteristics

List of data elements and locations

Record layout and definition of items and codes

Titles and codes for the 130 cause-of death list

Documentation tables 1-6

External Links

[Infant Mortality Statistics from the 2009 Period Linked Birth/Infant Death Data Set](#)

[User's Guide for the 2009 Natality File](#)

[Deaths: Final Data for 2009](#) (see Technical Notes)

Introduction

This documentation is for the 2009 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 2009 period linked file consists of all infant deaths occurring in 2009 linked to their corresponding birth certificates, whether the birth occurred in 2008 or 2009. The denominator for this data set is all births occurring in 2009.

Birth cohort data - The numerator of the 2009 birth cohort linked file consists of deaths to infants born in 2009 linked to their corresponding birth certificates, whether the death occurred in 2009 or 2010. The denominator for this data set is all births occurring in 2009.

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 2009 birth cohort linked file includes several data files. The first file includes linked birth and death certificate data for all US infants born in 2009 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 2009 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 birth 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/nvss/vital_certificate_revisions.htm). Where comparable, revised data are combined with data from the remaining reporting areas. (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.

Most of the variables from the death certificate in this file are comparable despite changes to item wording and format in the 2003 revision. See more about the 2003 Revision at: http://www.cdc.gov/nchs/nvss/vital_certificate_revisions.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 2009 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) (see the [2009 Natality User Guide](#)). 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 areas that do not report items 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. Reporting flag codes are 0 (item reported in neither the current or previous year), 1 (item reported in both current and previous year), 2 (item reported in the previous but not in the current year), and 3 (item reported in the current but not in the previous year). 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 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.

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 with data based on the unrevised certificate. Accordingly, use of the reporting flag for this item will produce 2009 cohort data for the month prenatal care began for the states that implemented the revised birth certificate by January 1st 2009.

Sample SAS program

```
01 DATA work;
02     INFILE 'C:\VS09LKBC.USNUMPUB' 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. 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:\VS09LKBC.USNUMPUB ' 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*. 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 2009](#) and [Deaths: Final Data for 2009](#).

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. The denominator file is not weighted. 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 3.27 to 0.41 in the numerator file, and from 0.10 to 0.02 in the denominator file, thus greatly reducing 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.

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 provides computer lists of unlinked records to the states where the death occurred, to facilitate 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 User Guide and Final Reports linked in this document.

Characteristics of Unlinked File

For the 2009 cohort linked file 1.3% 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 2009](#)). 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 2009 cohort linked file for the 50 States and D.C. includes 25,819 linked infant death records and 353 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 26,172.

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 (96.8) and Texas (95.5). 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.

Table 1. Percent of infant deaths linked by state of occurrence of death: United States, 2009 cohort linked file

| | | | |
|----------------------|-------|----------------|-------|
| United States | 98.7 | Nebraska | 100.0 |
| Alabama | 100.0 | Nevada | 99.6 |
| Alaska | 100.0 | New Hampshire | 100.0 |
| Arizona | 97.7 | New Jersey | 97.3 |
| Arkansas | 100.0 | New Mexico | 97.9 |
| California | 96.8 | New York State | 98.6 |
| Colorado | 100.0 | New York City | 99.7 |
| Connecticut | 98.6 | North Carolina | 99.8 |
| Delaware | 100.0 | North Dakota | 100.0 |
| District of Columbia | 99.5 | Ohio | 97.8 |
| Florida | 99.9 | Oklahoma | 98.3 |
| Georgia | 99.0 | Oregon | 100.0 |
| Hawaii | 100.0 | Pennsylvania | 99.5 |
| Idaho | 100.0 | Rhode Island | 100.0 |
| Illinois | 98.2 | South Carolina | 100.0 |

| | | | |
|---------------|-------|----------------|-------|
| Indiana | 99.2 | South Dakota | 100.0 |
| Iowa | 100.0 | Tennessee | 100.0 |
| Kansas | 99.6 | Texas | 95.5 |
| Kentucky | 97.6 | Utah | 99.0 |
| Louisiana | 97.5 | Vermont | 100.0 |
| Maine | 98.7 | Virginia | 99.9 |
| Maryland | 100.0 | Washington | 99.8 |
| Massachusetts | 99.5 | West Virginia | 100.0 |
| Michigan | 99.5 | Wisconsin | 100.0 |
| Minnesota | 99.7 | Wyoming | 100.0 |
| Mississippi | 100.0 | Puerto Rico | 98.3 |
| Missouri | 99.5 | Virgin Islands | 91.7 |
| Montana | 100.0 | Guam | 100.0 |

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 public-use files from 2005 forward, no U.S. geographic detail is identified.

Resources

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 variables. In particular, there are a number of details about multiple cause-of-death coding which, if not understood and analyzed 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, see <http://www.cdc.gov/nchs/icd/icd10.htm> . Many of the instruction manuals listed below are available electronically on the NCHS website. The User Guide for natality and the mortality final report for 2008 linked 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, 2009. 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, 2009. 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, 2009. 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.
- E. National Center for Health Statistics. Specifications for U.S. Standard Certificate of Death – 2003 Revision.
- 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 2009. NCHS Instruction Manual Part 11. Hyattsville, Maryland: Public Health Service.

Instruction manuals are available at:

http://www.cdc.gov/nchs/nvss/instruction_manuals.htm

Also see: http://www.cdc.gov/nchs/nvss/vital_certificate_revisions.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. 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. 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.

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. Additional information on the underlying cause of death can be found at <http://www.cdc.gov/nchs/data/dvs/mort99doc.pdf> .

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.

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. Additional information on multiple cause data processing can be found at <http://www.cdc.gov/nchs/data/dvs/mort99doc.pdf> .

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 on 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 in 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.

2009 Cohort Linked Birth/Infant Death Data Set

Numerator Files:

United States

| | |
|-------------------|--|
| A. Record count: | 25,819 |
| B. Record length: | 1,259 |
| C. Data counts: | a. By occurrence: 25,819 b. By residence: 25,793 c. To foreign residents: 26 |

Territories

| | |
|-------------------|-------|
| A. Record count: | 408 |
| B. Record length: | 1,259 |

Denominator Files:

United States

| | |
|-------------------|---|
| A. Record count: | 4,137,836 |
| B. Record length: | 900 |
| C. Data counts: | a. By occurrence: 4,137,836 b. By residence: 4,130,665 c. To foreign residents: 7,171 |

Territories

| | |
|-------------------|--------|
| A. Record count: | 50,005 |
| B. Record length: | 900 |

Unlinked Files:

United States

| | |
|-------------------|-------|
| A. Record count: | 353 |
| B. Record length: | 1,259 |

Territories

| | |
|-------------------|-------|
| A. Record count: | 7 |
| B. Record length: | 1,259 |

2009 Cohort Linked Selected Data Elements and Locations

| Data Items | Denominator Plus File | Numerator File | | Unlinked File |
|--------------------------|--------------------------|--------------------|---------|---------------------|
| | | Birth | Death | |
| General | | | | |
| Infant death number | 10-14 | 10-14 | -- | -- |
| Year of birth | 15-18 | 15-18 | -- | 15-18* |
| Year of death | -- | -- | 1188-91 | 1188-91 |
| Resident status | 138 | 138 | 1151 | 1151 |
| Record weight | 893-900 | 893-900 | -- | -- |
| Match status | 868 | 868 | -- | -- |
| Infant | | | | |
| Age at death | -- | -- | 872-77 | 872-77 ⁺ |
| Race | -- | -- | -- | 139-44* |
| Sex | 436 | 436 | -- | 436* |
| Gestation | 451-57 | 451-57 | -- | -- |
| Birthweight | 467-73 | 467-73 | -- | -- |
| Plurality | 423 | 423 | -- | -- |
| Apgar score | 415-17 | 415-17 | -- | -- |
| Birth place | 42, 59 | 42,59 | -- | -- |
| Day of week, birth/death | 29 | 29 | 1187 | 1187 |
| Month, birth/death | 19-20 | 19-20 | 1258-59 | 1258-59 |
| Mother | | | | |
| Age | 89-93 | 89-93 | -- | -- |
| Race | 139-44 | 139-44 | -- | -- |
| Education | 155-58 | 155-58 | -- | -- |
| Marital status | 153 | 153 | -- | -- |
| Hispanic origin | 148-49 | 148-49 | -- | -- |
| Father | | | | |
| Age | 182-87 | 182-87 | -- | -- |
| Race | 188-91, 199-200 | 188-91, 199-200 | -- | -- |
| Hispanic origin | 195-96 | 195-96 | -- | -- |
| Pregnancy items | | | | |
| Total birth order | 215-17 | 215-17 | -- | -- |
| Live birth order | 210-12 | 210-12 | -- | -- |

| | | | | |
|--|--------------|--------------|----------|----------|
| Month prenatal care began | 245-7, 256-9 | 245-7, 256-9 | -- | -- |
| Number of prenatal visits | 270-3 | 270-3 | -- | -- |
| Medical and health data | | | | |
| Method of delivery | 390-401 | 390-401 | -- | -- |
| Medical risk factors | 313-19 | 313-19 | -- | -- |
| | 328-37 | 328-37 | -- | -- |
| Tobacco | 284-94 | 284-94 | -- | -- |
| Alcohol | 295-98 | 295-98 | -- | -- |
| Weight gain during preg | 276-78 | 276-78 | -- | -- |
| Obstetric procedures | 351-61 | 351-61 | -- | -- |
| Complications and Characteristics of L/D | 365-89 | 365-89 | -- | -- |
| Abnormal conditions | 476-82 | 476-82 | -- | -- |
| Congenital anomalies | 492-523 | 492-523 | -- | -- |
| Underlying cause of death | -- | -- | 884-87 | 884-87 |
| 130 infant cause recode | -- | -- | 889-91 | 889-91 |
| Multiple conditions | -- | -- | 903-1148 | 903-1148 |
| Other items | | | | |
| Residence reporting | | | | |
| Flags | 569-771 | 569-771 | -- | -- |
| Late record flag | 9 | 9 | -- | -- |
| Attendant at birth | 410 | 410 | -- | -- |
| Place of death and decedent's status | -- | -- | 1186 | 1186 |
| Place of injury | -- | -- | 882 | 882 |
| Manner of death | -- | -- | 878 | 878 |
| Method of disposition | -- | -- | 879 | 879 |
| Autopsy | -- | -- | 880 | 880 |

* 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 | Rev* | Values | Definition |
|---|-----|----------|---|----------------------------|------|-------------|--|
| 2009 COHORT LINKED FILE PUBLIC-USE RECORD LAYOUT | | | | | | | |
| 1-6 | 6 | FILLER | Filler | | | | |
| 7 | 1 | REVISION | Revision | | U,R | R | State used the 2003 version of the US Standard Birth Certificate (Revised) |
| | | | | | | U | State used the 1989 version of the US Standard Birth Certificate (Unrevised) |
| 8 | 1 | FILLER | Filler | | | | |
| 9 | 1 | LATEREC | Late Record Flag | | U,R | 0 | Not late record |
| | | | | | | 1 | Late record |
| 10-14 | 5 | SEQNUM | Infant Death Number This number uniquely identifies the same infant In the numerator and denominator-plus files. | | | 00001-nnnnn | |
| 15-18 | 4 | DOB_YY | Birth Year | | U,R | 2009 | 2009 |
| 19-20 | 2 | DOB_MM | 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 |
| 21-28 | 8 | FILLER | Filler | | | | |
| 29 | 1 | DOB_WK | Weekday | | U,R | 1 | Sunday |
| | | | | | | 2 | Monday |
| | | | | | | 3 | Tuesday |
| | | | | | | 4 | Wednesday |
| | | | | | | 5 | Thursday |
| | | | | | | 6 | Friday |
| | | | | | | 7 | Saturday |

* 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).

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R Includes data based on both 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 | Rev* | Values | Definition |
|----------|-----|-----------|---|----------------------------|------|---|--|
| 30-31 | 2 | OSTATE | Occurrence Territory (This item is available in the territory file only, geographic codes are not available in the U.S.file) | | U,R | | |
| | | | <u>Outlying Areas of the U.S.</u> | | | GU PR VI | Guam Puerto Rico Virgin Islands |
| 32-36 | 5 | FILLER | Filler | | | | |
| 37-39 | 3 | OCNTYFIPS | Occurrence County (This item is available in the territory file only, geographic codes are not available in the U.S.file) | | U,R | | |
| | | | <u>Puerto Rico</u> | | | 127 999 | San Juan County less than 250,000 |
| | | | <u>Other Outlying Areas of the U.S.</u> | | | 000 999 | No county level geography County less than 250,000 |
| 40 | 1 | OCNTYPOP | Occurrence County Pop (This item is available in the territory file only, geographic codes are not available in the U.S.file) | | 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 | BFACIL | Birth Place (Revised) | 676 | R | 1 2 3 4 5 6 7 9 Blank | Hospital Freestanding Birthing Center Home (intended) Home (not intended) Home (unknown if intended) Clinic / Doctor's Office Other Unknown Not on certificate |
| 42 | 1 | UBFACIL | Birth Place | | U,R | 1 2 3 4 5 9 | Hospital Freestanding Birthing Center Clinic / Doctor's Office Residence Other Unknown |

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R Includes data based on both 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 | Rev* | Values | Definition |
|----------|-----|-------------|------------------------------------|----------------------------|------|--|---|
| 43-58 | 16 | FILLER | Filler | | | | |
| 59 | 1 | BFACIL3 | Birth Place Recode | | U,R | 1 2 3 | In Hospital Not in Hospital Unknown or Not Stated |
| 60-86 | 27 | FILLER | Filler | | | | |
| 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 | MAGER | Mother's Age Recode 41 | | U,R | 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 | 10 – 12 years 13 years 14 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 27 years 28 years 29 years 30 years 31 years 32 years 33 years 34 years 35 years 36 years 37 years 38 years 39 years 40 years 41 years |

* 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).

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R Includes data based on both 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 | Rev* | Values | Definition |
|----------|-----|---------|--|-------------------------|------|--------|--|
| | | | | | | 42 | 42 years |
| | | | | | | 43 | 43 years |
| | | | | | | 44 | 44 years |
| | | | | | | 45 | 45 years |
| | | | | | | 46 | 46 years |
| | | | | | | 47 | 47 years |
| | | | | | | 48 | 48 years |
| | | | | | | 49 | 49 years |
| | | | | | | 50 | 50 -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 |
| | | | | | | 14 | 50-54 years |
| 93 | 1 | MAGER9 | Mother's Age Recode 9 | | U,R | 1 | Under 15 years |
| | | | | | | 2 | 15-19 years |
| | | | | | | 3 | 20-24 years |
| | | | | | | 4 | 25-29 years |
| | | | | | | 5 | 30-34 years |
| | | | | | | 6 | 35-39 years |
| | | | | | | 7 | 40-44 years |
| | | | | | | 8 | 45-49 years |
| | | | | | | 9 | 50-54 years |
| 94-95 | 2 | MBCNTRY | Mother's Birth Country (This item is available in the territory file only, geographic codes are not available in the U.S.file) | | R** | AA-ZZ | A complete list is shown in the Geographic Code Outline. |

** Also includes unrevised territories/possessions that use new geographic coding.

| | | | | | | | |
|--------|----|--------|---|--|--|--|--|
| 96-108 | 13 | FILLER | Filler | | | | |
| | | * 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 both the 1989 Revision of the U.S. Certificate of Live Birth; excludes data based on the 2003 Revision. | | | | |
| | | R | Includes data based on both 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 | Rev* | Values | Definition |
|----------|---|-----------|--|----------------------------|------|--|---|
| 109-110 | 2 | MR TERR | Mother's Residence (This item is available in the territory file only, geographic codes are not available in the U.S.file) | | U,R | GU PR VI CC CU MX US XX ZZ | Guam Puerto Rico Virgin Islands Canada Cuba Mexico United States Not Applicable Not Classifiable |
| 111-113 | 3 | FILLER | Filler | | | | |
| 114-116 | 3 | MRCNTY | Mother's County of residence (This item is available in the territory file only, geographic codes are not available in the U.S.file) | | | 127 999 | San Juan County of less than 250,000 or foreign resident |
| | | | <u>Other Outlying Areas of the US</u> | | | 000 999 | No county level geography County of less than 250,000 or foreign resident |
| 117-131 | 15 | FILLER | Filler | | | | |
| 132 | 1 | RCNTY_POP | Population of Residence County (This item is available in the territory file only, geographic codes are not available in the U.S.file) | | 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 |
| 133-136 | 4 | FILLER | Filler | | | | |
| 137 | 1 | RECTYPE | Record Type (This item is available in the territory file only, geographic codes are not | | U,R | 1 2 | RESIDENT: State and county of occurrence and residence are the same. NONRESIDENT: State and county of occurrence and |
| * 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 both the 1989 Revision of the U.S. Certificate of Live Birth; excludes data based on the 2003 Revision. | | | | | | |
| R | Includes data based on both 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 | Rev* | Values | Definition |
|----------|-----|----------|--|-------------------------|------|--------|---|
| | | | available in the U.S.file) | | | | residence are different. |
| 138 | 1 | RESTATUS | Residence Status <u>United States</u> | | U,R | 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. |
| | | | <u>Outlying areas of the US</u> | | | 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. |
| | | | | | | 2 | INTERTERRITORY RESIDENT: Territory of occurrence and residence are different but both are US Territories. |
| | | | | | | 3 | FOREIGN RESIDENT: The residence is not a US Territory. |
| 139-140 | 2 | MBRACE | Mother's Bridged Race Includes only states reporting multiple race. Codes 01-14 used for individuals reporting only one race. Codes 21-24 used for individuals reporting more than one race that have been bridged to a single race. Code 24 also used for individuals reporting more than one Asian/Pacific Islander group; see "Technical Appendix." | | R** | 01 | White – single race |
| | | | | | | 02 | Black – single race |
| | | | | | | 03 | American Indian/Alaska Native – 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 / Alaska Native – bridged multiple race |
| | | | | | | 24 | Asian / Pacific Islander – bridged multiple race |
| | | | | | | Blank | Not on certificate |

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R Includes data based on both 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 | Rev* | Values | Definition |
|----------|-----|-------|--|----------------------------|------|---|--|
| 141-142 | 2 | MRACE | Mother's Race Includes only states exclusively reporting single race. Some areas report additional Asian or Pacific Islander (API) codes for race. Codes 18-68 replace former code 08 for these areas. Code 78 replaces former code 08 for all other areas. See reporting flag at position 650 for API reporting area. | | U | | |
| | | | <u>United States</u> | | | 01 02 03 04 05 06 07 18 28 38 48 58 68 78 Blank | White Black American Indian / Alaskan Native 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. Not on certificate |
| | | | <u>Puerto Rico</u> | | | 01 02 00 Blank | White Black Other races Not on certificate |
| | | | <u>Guam</u> | | | 01 02 03 04 05 06 07 08 58 Blank | White Black American Indian / Alaska Native Chinese Japanese Hawaiian (includes part Hawaiian) Filipino Other Asian or Pacific Islander Guamanian Not on certificate |

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R Includes data based on both 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 | Rev* | Values | Definition |
|----------|-----|-----------|--|----------------------------|------|---|--|
| | | | <u>All other Outlying Areas of the US</u> | | | 01 02 03 04 05 06 07 08 Blank | White Black American Indian / Alaska Native Chinese Japanese Hawaiian (includes part Hawaiian) Filipino Other Asian or Pacific Islander Not on certificate |
| 143 | 1 | MRACEREC | Mother's Race Recode Includes individuals reporting only one race and individuals reporting more than one race bridged to a single race. | | U,R | | |
| | | | <u>United States and all Outlying Areas of the United States except Puerto Rico</u> | | | 1 2 3 4 | White Black American Indian / Alaskan Native Asian / Pacific Islander |
| | | | <u>Puerto Rico</u> | | | 1 2 0 | White Black Other (not classified as White or Black) |
| 144 | 1 | MRACEIMP | Mother's Race Imputed Flag | | U,R | Blank 1 2 | Mother's race not imputed Unknown race imputed All other races, formerly coded 09, imputed. |
| 145-147 | 3 | FILLER | Filler | | | | |
| 148 | 1 | UMHISP | Mother's Hispanic Origin | 569 | 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 |
| 149 | 1 | MRACEHISP | Mother's Race/Hispanic Origin | 569 | U,R | 1 2 3 | Mexican Puerto Rican Cuban |

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R Includes data based on both 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 | Rev* | Values | Definition |
|----------|-----|---------|--|----------------------------|------|--------|--|
| | | | | | | 4 | Central or South American |
| | | | | | | 5 | Other and Unknown Hispanic |
| | | | | | | 6 | Non-Hispanic White |
| | | | | | | 7 | Non-Hispanic Black |
| | | | | | | 8 | Non-Hispanic Other Races |
| | | | | | | 9 | Origin unknown or not stated |
| 150-152 | 3 | FILLER | Filler | | | | |
| 153 | 1 | MAR | Mother's Marital Status | | U,R | | |
| | | | <u>United States and all Outlying Areas of the US except Puerto Rico</u> | | | 1 | Yes |
| | | | | | | 2 | No |
| | | | | | | 9 | Unknown or not Stated |
| | | | <u>Puerto Rico</u> | | | 1 | Yes |
| | | | | | | 2 | Unmarried parents living together |
| | | | | | | 3 | Unmarried parents not living together |
| | | | | | | 9 | Unknown or not stated |
| 154 | 1 | MAR_IMP | Mother's Marital Status Imputed Flag | | U,R | Blank | Marital Status not imputed |
| | | | | | | 1 | Marital Status imputed |
| 155 | 1 | MEDUC | Mother's Educ –Revised | 571 | R | 1 | 8 th grade or less |
| | | | | | | 2 | 9 th through 12 th grade with no diploma |
| | | | | | | 3 | High school graduate or GED completed |
| | | | | | | 4 | Some college credit, but not a degree. |
| | | | | | | 5 | Associate degree (AA,AS) |
| | | | | | | 6 | Bachelor's degree (BA, AB, BS) |
| | | | | | | 7 | Master's degree (MA, MS, MEng, MEd, MSW, MBA) |
| | | | | | | 8 | Doctorate (PhD, EdD) or Professional Degree (MD, DDS, DVM, LLB, JD) |
| | | | | | | 9 | Unknown |
| | | | | | | Blank | Not on certificate |
| 156-157 | 2 | UMEDUC | Mother's Educ –Unrevised | 647 | U | 00 | No formal education |
| | | | | | | 01-08 | Years of elementary school |
| | | | | | | 09 | 1 year of high school |
| | | | | | | 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 |

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R Includes data based on both 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 | Rev* | Values | Definition |
|----------|-----|-------------|---|----------------------------|------|--------|---|
| | | | | | | 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 | | | | |
| 175 | 1 | FAGERPT_FLG | Father's Reported Age Used | | U,R | Blank | Father's reported age not used |
| | | | | | | 1 | Father's reported age used |
| 176-181 | 6 | FILLER | Filler | | | | |
| 182-183 | 2 | FAGECOMB | Father's Combined Age (Revised) | | R | 09-98 | Father's combined age in years |
| | | | | | | 99 | Unknown or not stated |
| | | | | | | Blank | Not on certificate |
| 184-185 | 2 | UFAGECOMB | Father's Combined Age (Unrevised) | | 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 |
| | | | | | | 09 | 50-54 years |
| | | | | | | 10 | 55-98 years |
| | | | | | | 11 | Not stated |
| 188-189 | 2 | FBRACE | Father's Bridged Race | | R** | 01 | White – single race |
| | | | Includes only states reporting multiple race. Codes | | | 02 | Black – single race |
| | | | 01-14 used for individuals reporting only one race. | | | 03 | American Indian/Alaska Native – single race |
| | | | Codes 21-24 used for individuals reporting more than | | | 04 | Asian Indian – single race |
| | | | one race that have been bridged to a single race. | | | 05 | Chinese – single race |
| * 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 both the 1989 Revision of the U.S. Certificate of Live Birth; excludes data based on the 2003 Revision. | | | | |
| R | | | Includes data based on both 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 | Rev* | Values | Definition |
|----------|-----|----------|---|-------------------------|------|--|---|
| | | | Code 24 also used for individuals reporting more than one Asian/Pacific Islander group; see "Technical Appendix." | | | 06 07 08 09 10 11 12 13 14 21 22 23 24 99 | Filipino – single race Japanese – single race Korean – single race Vietnamese – single race Other Asian – single race Hawaiian – single race Guamanian – single race Samoan – single race Other Pacific Islander – single race White – bridged multiple race Black – bridged multiple race American Indian / Alaska Native – bridged multiple race Asian / Pacific Islander – bridged multiple race Unknown or not stated, also includes states not reporting multiple race. |
| | | | ** Also includes unrevised states that report multiple race. | | | Blank | Not on certificate |
| 190 | 1 | FILLER | Filler | | | | |
| 191 | 1 | FRACEREC | Father's Race Recode Includes individuals reporting only one race and individuals reporting more than one race bridged to a single race. | | U,R | | |
| | | | <u>United States and all Outlying Areas of the US except Puerto Rico</u> | | | 1 2 3 4 9 | White Black American Indian / Alaskan Native Asian / Pacific Islander Unknown or not stated |
| | | | <u>Puerto Rico</u> | | | 1 2 9 0 | White Black Unknown or not stated Other (not classified as White or Black) |
| 192-194 | 3 | FILLER | Filler | | | | |
| 195 | 1 | UFHISP | Father's Hispanic Origin | | | | |
| | | | | 570 | U,R | 0 1 2 3 4 | Non-Hispanic Mexican Puerto Rican Cuban Central American |
| | | * 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 both the 1989 Revision of the U.S. Certificate of Live Birth; excludes data based on the 2003 Revision. | | | | |
| | | R | Includes data based on both 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 | Rev* | Values | Definition |
|----------|-----|-----------|--------------------------------------|----------------------------|------|--------|--|
| | | | | | | 5 | Other and Unknown Hispanic |
| | | | | | | 9 | Origin unknown or not stated |
| 196 | 1 | FRACEHISP | Father's Race/Hispanic Origin | 570 | U,R | 1 | Mexican |
| | | | | | | 2 | Puerto Rican |
| | | | | | | 3 | Cuban |
| | | | | | | 4 | Central or South American |
| | | | | | | 5 | Other and Unknown Hispanic |
| | | | | | | 6 | Non-Hispanic White |
| | | | | | | 7 | Non-Hispanic Black |
| | | | | | | 8 | Non-Hispanic Other Races |
| | | | | | | 9 | Origin unknown or not stated |
| 197-198 | 2 | FILLER | Filler | | | | |
| 199-200 | 2 | UFRACE | Father's Race (Unrevised) | | U | | |
| | | | <u>United States</u> | | | 01 | White |
| | | | | | | 02 | Black |
| | | | | | | 03 | American Indian / Alaska Native |
| | | | | | | 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. |
| | | | | | | 99 | Unknown or not stated |
| | | | | | | Blank | Not on certificate |
| | | | <u>Puerto Rico</u> | | | 01 | White |
| | | | | | | 03 | Black |
| | | | | | | 00 | Other races not classified white or black |
| | | | | | | 99 | Unknown or not stated |
| | | | | | | Blank | Not on certificate |
| | | | <u>Guam</u> | | | 01 | White |
| | | | | | | 02 | Black |

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R Includes data based on both 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 | Rev* | Values | Definition |
|----------|-----|---------|---|----------------------------|------|--------|-----------------------------------|
| | | | | | | 03 | American Indian / Alaska Native |
| | | | | | | 04 | Chinese |
| | | | | | | 05 | Japanese |
| | | | | | | 06 | Hawaiian (includes part Hawaiian) |
| | | | | | | 07 | Filipino |
| | | | | | | 08 | Other Asian or Pacific Islander |
| | | | | | | 58 | Guamanian |
| | | | | | | 99 | Unknown or not stated |
| | | | | | | Blank | Not on certificate |
| | | | <u>All other Outlying Areas of the US</u> | | | 01 | White |
| | | | | | | 02 | Black |
| | | | | | | 03 | American Indian / Alaska Native |
| | | | | | | 04 | Chinese |
| | | | | | | 05 | Japanese |
| | | | | | | 06 | Hawaiian (includes part Hawaiian) |
| | | | | | | 07 | Filipino |
| | | | | | | 08 | Other Asian or Pacific Islander |
| | | | | | | 99 | Unknown or not stated |
| | | | | | | Blank | Not on certificate |
| 201-211 | 11 | FILLER | Filler | | | | |
| 212 | 1 | LBO | Live Birth Order | | U,R | 1-7 | Number of live birth order. |
| | | | | | | 8 | 8 or more live births |
| | | | | | | 9 | Unknown or not stated |
| 213-216 | 4 | FILLER | Filler | | | | |
| 217 | 1 | TBO | Total Birth Order | | U,R | 1-7 | Number of total birth order. |
| | | | | | | 8 | Total birth order of 8 or more |
| | | | | | | 9 | Unknown or not stated |
| 218-219 | 2 | FILLER | Filler | | | | |
| 220-221 | 2 | DLLB_MM | Date of Last Live Birth Month | | R | 01 | January |
| | | | | | | 02 | February |
| | | | | | | 03 | March |
| | | | | | | 04 | April |
| | | | | | | 05 | May |
| | | | | | | 06 | June |
| | | | | | | 07 | July |
| | | | | | | 08 | August |
| | | | | | | 09 | September |

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R Includes data based on both 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 | Rev* | Values | Definition |
|----------|-----|-------------|---|----------------------------|------|-------------------------------------|--|
| | | | | | | 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 | | R | n n n n 8888 9999 | Year of last live birth Not applicable Unknown or not stated |
| 226-244 | 19 | FILLER | Filler | | | | |
| 245-246 | 2 | PRECARE | Month Prenatal Care Began (Revised) | 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 (Revised) | 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 | | | | |
| 256-257 | 2 | MPCB | Month Prenatal Care Began (Unrevised) | 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 (Unrevised) | 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 (Unrevised) | | | | |
| | | * 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 both the 1989 Revision of the U.S. Certificate of Live Birth; excludes data based on the 2003 Revision. | | | | |
| | | R | Includes data based on both 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 | Rev* | Values | Definition |
|----------|-----|------------|--|----------------------------|-------|--|---|
| | | | | 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 | | | | |
| 270-271 | 2 | UPREVIS | Number of Prenatal Visits | | U,R | 00-49 99 | Number of prenatal visits Unknown or not stated |
| 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 | | | | |
| 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 | 1 | FILLER | Filler | | | | |
| 280 | 1 | DFPC_IMP | Day of Date First Prenatal Care Imputed | | R | Blank | Day of date first prenatal care not imputed |
| | | | | | * 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 both the 1989 Revision of the U.S. Certificate of Live Birth; excludes data based on the 2003 Revision. |
| | | | | | R | | Includes data based on both 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 | Rev* | Values | Definition |
|----------|-----|-----------|---|----------------------------|------|--|---|
| | | | | | | 1 | Day of date first prenatal care imputed |
| 281-283 | 3 | FILLER | Filler | | | | |
| 284-285 | 2 | CIG_1 | Cigarettes 1st Trimester | 575 | 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 | 575 | R | 00-97 98 99 Blank | Number of cigarettes daily 98 or more cigarettes daily Unknown or not stated Not on certificate |
| 288-289 | 2 | CIG_3 | Cigarettes 3rd Trimester | 575 | 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 | 667 | U | 00-97 98 99 Blank | Number of cigarettes daily 98 or more cigarettes daily Unknown or not stated Not on certificate |
| 293 | 1 | UCIG_REC6 | Cigarette Recode | 667 | 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 |
| 295-312 | 18 | FILLER | Filler | | | | |
| | | * 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 both the 1989 Revision of the U.S. Certificate of Live Birth; excludes data based on the 2003 Revision. | | | | |
| | | R | Includes data based on both 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 | Rev* | Values | Definition | |
|----------|-----|---|---|----------------------------|------|----------------------------|---|--|
| 313-319 | 9 | <u>Risk Factors (Revised)</u> The checkbox items below follow this code structure: | | | | Y N U Blank | Yes No Unknown or not stated Not on certificate | |
| 313 | 1 | RF_DIAB | Prepregnancy Diabetes | 582 | R | | | |
| 314 | 1 | RF_GEST | Gestational Diabetes | 583 | R | | | |
| 315 | 1 | RF_PHYP | Prepregnancy Hypertesion | 584 | R | | | |
| 316 | 1 | RF_GHYP | Gestational Hypertension | 585 | R | | | |
| 317 | 1 | RF_ECLAM | Eclampsia | 586 | R | | | |
| 318 | 1 | RF_PPTERM | Previous Preterm Birth | 587 | R | | | |
| 319 | 1 | RF_PPOUTC | Poor Pregnancy Outcome | 588 | R | | | |
| 320-323 | 4 | FILLER | Filler | | | | | |
| 324 | 1 | RF_CESAR | Previous Cesarean Deliveries | 593 | R | Y N U Blank | Yes No Unknown or not stated Not on certificate | |
| 325-326 | 2 | RF_CESARN | Number of Previous Cesarean Deliveries | 594 | R | 00 01-30 99 Blank | None Number of previous cesareans Unknown or not stated Not on certificate | |
| 327 | 1 | FILLER | Filler | | | | | |
| 328-337 | 10 | <u>Risk Factors in this Pregnancy</u> The checkbox items indented below follow this structure: The version is all 1989 Standard unless otherwise noted. | | | | U | 1 2 9 Blank | Yes No Unknown Not on certificate |
| 328-330 | 3 | FILLER | Filler | | | | | |
| 331 | 1 | URF_DIAB | Diabetes | 684 | U,R | | | |
| 332-334 | 3 | FILLER | Filler | | | | | |
| 335 | 1 | URF_CHYPER | Chronic Hypertension | 688 | U,R | | | |
| 336 | 1 | URF_PHYPER | Pregnancy-Associated Hypertension | 689 | U,R | | | |
| 337 | 1 | URF_ECLAM | Eclampsia | 690 | U,R | | | |
| 338-350 | 13 | FILLER | Filler | | | | | |
| 351-354 | 4 | <u>Obstetric Procedures (Revised)</u> | | | | | | |
| * 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 both the 1989 Revision of the U.S. Certificate of Live Birth; excludes data based on the 2003 Revision. | | | | | | |
| R | | Includes data based on both 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 | Rev* | Values | Definition | |
|----------|-----|---|--|----------------------------|------|--------|-----------------------|-----------------------|
| | | | The checkbox items indented below follow this structure: | | | | Y | Yes |
| | | | | | | | N | No |
| | | | | | | | U | Unknown or not stated |
| | | | | | | | Blank | Not on certificate |
| 351 | 1 | OP_CERV | Cervical Cerclage | 601 | R | | | |
| 352 | 1 | OP_TOCOL | Tocolysis | 602 | R | | | |
| 353 | 1 | OP_ECVS | Successful External Cephalic Version | 603 | R | | | |
| 354 | 1 | OP_ECVF | Failed External Cephalic Version | 604 | R | | | |
| 355-361 | 7 | <u>Obstetric Procedures (Unrevised)</u> | | | | | | |
| | | The checkbox items indented below follow this structure: | | | | 1 | Yes | |
| | | The version is all 1989 Standard unless otherwise noted. | | | | 2 | No | |
| | | | | | | 9 | Unknown or not stated | |
| | | | | | | Blank | Not on certificate | |
| 355-356 | 2 | FILLER | Filler | | | | | |
| 357 | 1 | UOP_INDUC | Induction of Labor | 703 | U,R | | | |
| 358 | 1 | FILLER | Filler | | | | | |
| 359 | 1 | UOP_TOCOL | Tocolysis | 705 | U,R | | | |
| 360-361 | 2 | FILLER | Filler | | | | | |
| 362-364 | 3 | <u>Onset of Labor</u> | | | | | | |
| | | The checkbox items below follow this structure: | | | | Y | Yes | |
| | | | | | | N | No | |
| | | | | | | U | Unknown or not stated | |
| | | | | | | Blank | Not on certificate | |
| 362 | 1 | ON_RUPTR | Premature Rupture of Membrane | 605 | R | | | |
| 363 | 1 | ON_PRECIP | Precipitous Labor | 606 | R | | | |
| 364 | 1 | ON_PROL | Prolonged Labor | 607 | R | | | |
| 365-373 | 9 | <u>Characteristics of Labor and Delivery (Revised)</u> | | | | | | |
| | | The checkbox items below follow this structure: | | | | Y | Yes | |
| | | | | | | N | No | |
| | | | | | | U | Unknown or not stated | |
| | | | | | | Blank | Not on certificate | |
| 365 | 1 | LD_INDL | Induction of Labor | 608 | R | | | |
| 366 | 1 | LD_AUGM | Augmentation of Labor | 609 | R | | | |
| 367 | 1 | LD_NVPR | Non-Vertex Presentation | 610 | R | | | |
| 368 | 1 | LD_STER | Steroids | 611 | R | | | |
| 369 | 1 | LD_ANTI | Antibiotics | 612 | R | | | |
| 370 | 1 | LD_CHOR | Chorioamnionitis | 613 | R | | | |
| 371 | 1 | LD_MECS | Meconium Staining | 614 | R | | | |
| 372 | 1 | LD_FINT | Fetal Intolerance | 615 | R | | | |
| 373 | 1 | LD_ANES | Anesthesia | 616 | R | | | |

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R Includes data based on both 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 | Rev* | Values | Definition |
|----------|-----|---|---------------------------------------|----------------------------|------|--------------------------------|---|
| 374-389 | 16 | <u>Complications of Labor and Delivery</u> The checkbox items indented below follow this structure: | | | | 1 2 9 Blank | Yes No Unknown or not stated Not on certificate |
| 374 | 1 | FILLER | Filler | | | | |
| 375 | 1 | ULD_MECO | Meconium | 712 | U,R | | |
| 376-380 | 5 | FILLER | Filler | | | | |
| 381 | 1 | ULD_PRECIP | Precipitous Labor | 718 | U,R | | |
| 382-383 | 2 | FILLER | Filler | | | | |
| 384 | 1 | ULD_BREECH | Breech | 721 | U,R | | |
| 385-389 | 5 | FILLER | Filler | | | | |
| 390-394 | 5 | <u>Method of Delivery (Revised)</u> | | | | | |
| 390 | 1 | ME_ATTf | Attempted Forceps | 617 | R | Y N U Blank | Yes No Unknown Not on certificate |
| 391 | 1 | ME_ATTv | Attempted Vacuum | 618 | R | Y N U Blank | Yes No Unknown Not on certificate |
| 392 | 1 | ME_PRES | Fetal Presentation | 619 | R | 1 2 3 9 Blank | Cephalic Breech Other Unknown Not on certificate |
| 393 | 1 | ME_ROUT | Route & Method of Delivery | 620 | R | 1 2 3 4 9 Blank | Spontaneous Forceps Vacuum Cesarean Unknown Not on certificate |
| 394 | 1 | ME_TRIAL | Trial of Labor Attempted | 621 | R | Y N X U | Yes No Not applicable Unknown |

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R Includes data based on both 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 | Rev* | Values | Definition |
|----------|-----|---|--|----------------------------|------|---------------------------------|--|
| | | | | | | Blank | Not on certificate |
| 395-400 | 6 | <u>Method of Delivery (Unrevised)</u> The checkbox items indented below follow this structure: | | | | 1 2 9 | Yes No Unknown or not stated |
| 395 | 1 | UME_VAG | Vaginal | 730 | U | | |
| 396 | 1 | UME_VBAC | Vaginal after C-Section | 731 | U | | |
| 397 | 1 | UME_PRIMC | Primary C-Section | 732 | U | | |
| 398 | 1 | UME_REPEC | Repeat C-Section | 733 | U | | |
| 399 | 1 | UME_FORCP | Forceps | 734 | U,R | | |
| 400 | 1 | UME_VAC | Vacuum | 735 | U,R | | |
| 401 | 1 | RDMETH_REC | Delivery Method Recode (Revised) 679 | | R | 1 2 3 4 5 6 9 | Vaginal (excludes vaginal after previous C-section) Vaginal after previous c-section Primary C-section Repeat C-section Vaginal (unknown if previous c-section) (2003 Standard only) C-section (unknown if previous c-section) (2003 Standard only) Not stated |
| 402 | 1 | UDMETH_REC | Delivery Method Recode (Unrevised) 680 | | U | 1 2 3 4 9 | Vaginal (excludes vaginal after previous C-section) Vaginal after previous c-section Primary C-section Repeat C-section Not stated |
| 403 | 1 | DMETH_REC | | | U,R | 1 2 9 | Vaginal C-Section Unknown |
| 404-409 | 6 | FILLER | Filler | | | | |
| 410 | 1 | ATTEND | Attendant | | U,R | 1 2 3 4 5 | Doctor of Medicine (MD) Doctor of Osteopathy (DO) Certified Nurse Midwife (CNM) Other Midwife Other |
| * 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 both the 1989 Revision of the U.S. Certificate of Live Birth; excludes data based on the 2003 Revision. | | | | | |
| R | | Includes data based on both 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 | Rev* | Values | Definition |
|----------|-----|----------|--|----------------------------|------|--|--|
| | | | | | | 9 | Unknown or not stated |
| 411-414 | 4 | FILLER | Filler | | | | |
| 415-416 | 2 | APGAR5 | Five Minute APGAR Score 574 | | U,R | 00-10 99 | A score of 0-10 Unknown or not stated |
| 417 | 1 | APGAR5R | Five Minute APGAR Recode 574 | | U,R | 1 2 3 4 5 | A score of 0-3 A score of 4-6 A score of 7-8 A score of 9-10 Unknown or not stated |
| 418-422 | 5 | FILLER | Filler | | | | |
| 423 | 1 | DPLURAL | Plurality Recode | | U,R | 1 2 3 4 5 | Single Twin Triplet Quadruplet Quintuplet or higher |
| 424 | 1 | FILLER | Filler | | | | |
| 425 | 1 | IMP_PLUR | Plurality Imputed | | U,R | Blank 1 | Plurality is imputed Plurality is not imputed |
| 426-435 | 10 | FILLER | Filler | | | | |
| 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 | January February March April May June July August September |

* 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).

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R Includes data based on both 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 | Rev* | Values | Definition |
|----------|-----|------------|---|-------------------------|------|-----------|---|
| | | | | | | 10 | October |
| | | | | | | 11 | November |
| | | | | | | 12 | December |
| | | | | | | 99 | Unknown or not stated |
| 440-441 | 2 | DLMP_DD | Last Normal Menses Day | | U,R | 01-31 | As applicable to month of LMP |
| | | | | | | 99 | Unknown or not stated |
| 442-445 | 4 | DLMP_YY | Last Normal Menses Year | | U,R | nnnn | Year of last normal menses |
| | | | | | | 9999 | Unknown or not stated |
| 446-447 | 2 | ESTGEST | Obstetric/Clinical Gestation Est. | 573 | U,R | 0-98 | 0 through 98 th week of gestation |
| | | | | | | 99 | Unknown or not stated |
| 448-450 | 3 | FILLER | Filler | | | | |
| 451-452 | 2 | COMBGEST | Gestation – Detail in Weeks | | U,R | 17-47 | 17 th through 47 th week of gestation |
| | | | | | | 99 | Unknown |
| 453-454 | 2 | GESTREC10 | Gestation Recode 10 | | U,R | 01 | Under 20 weeks |
| | | | | | | 02 | 20-27 weeks |
| | | | | | | 03 | 28-31 weeks |
| | | | | | | 04 | 32-33 weeks |
| | | | | | | 05 | 34-36 weeks |
| | | | | | | 06 | 37-38 weeks |
| | | | | | | 07 | 39 weeks |
| | | | | | | 08 | 40 weeks |
| | | | | | | 09 | 41 weeks |
| | | | | | | 10 | 42 weeks and over |
| | | | | | | 99 | Unknown |
| 455 | 1 | GESTREC3 | Gestation Recode 3 | | U,R | 1 | Under 37 weeks |
| | | | | | | 2 | 37 weeks and over |
| | | | | | | 3 | Not stated |
| 456 | 1 | OBGEST_FLG | Clinical Estimate of Gestation Used Flag | | U,R | Blank | Clinical Estimate is not used |
| | | | | | | 1 | Clinical Estimate is used |
| 457 | 1 | GEST_IMP | Gestation Imputed Flag | | U,R | Blank | Gestation is not imputed |
| | | | | | | 1 | Gestation is imputed |
| 458-466 | 9 | FILLER | Filler | | | | |
| 467-470 | 4 | BRTHWGT | Imputed Birthweight | | U,R | 0227-8165 | Number of grams |
| | | | | | | 9999 | Not stated birthweight |
| * 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 both the 1989 Revision of the U.S. Certificate of Live Birth; excludes data based on the 2003 Revision. | | | | |
| R | | | Includes data based on both 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 | Rev* | Values | Definition |
|----------|-----|----------|---|----------------------------|------|--|---|
| 471-472 | 2 | BWTR14 | Birthweight Recode 14 | | U,R | 01 02 03 04 05 06 07 08 09 10 11 12 13 14 | 499 grams or less 500 – 749 grams 750 - 999 grams 1000 - 1249 grams 1250 – 1499 grams 1500 – 1999 grams 2000 – 2499 grams 2500 – 2999 grams 3000 – 3400 grams 3500 – 3999 grams 4000 – 4499 grams 4500 – 4999 grams 5000 – 8165 grams Not Stated |
| 473 | 1 | BWTR4 | Birthweight Recode 4 | | U,R | 1 2 3 4 | 1499 grams or less 1500 – 2499 grams 2500 grams or more Unknown or not stated |
| 474 | 1 | FILLER | Filler | | | | |
| 475 | 1 | BWTIMP | Imputed Birth Weight Flag | | U,R | Blank 1 | Birth Weight is not imputed Birth Weight is imputed |
| 476-482 | 7 | | <u>Abnormal Conditions of the Newborn (Revised)</u> The checkbox items below follow this structure: | | | Y N U Blank | Yes, Complication reported No Complication reported Unknown or not stated Not on certificate |
| 476 | 1 | AB_AVEN1 | Assisted Ventilation | 628 | R | | |
| 477 | 1 | AB_AVEN6 | Assisted Ventilation >6 hrs | 629 | R | | |
| 478 | 1 | AB_NICU | Admission to NICU | 630 | R | | |
| 479 | 1 | AB_SURF | Surfactant | 631 | R | | |
| 480 | 1 | AB_ANTI | Antibiotics | 632 | R | | |
| 481 | 1 | AB_SEIZ | Seizures | 633 | R | | |
| 482 | 1 | AB_BINJ | Birth Injury | 634 | R | | |
| 483-491 | 9 | FILLER | Filler | | | | |
| 492-503 | 12 | | <u>Congenital Anomalies of the Newborn (Revised)</u> The checkbox items below follow this structure: | | | Y | Yes, anomaly reported |
| * 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 both the 1989 Revision of the U.S. Certificate of Live Birth; excludes data based on the 2003 Revision. | | | | |
| R | | | Includes data based on both 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 | Rev* | Values | Definition | |
|----------|-----|---|--|----------------------------|------|--------|--------------------------|--|
| | | | | | | N | No, anomaly not reported | |
| | | | | | | U | Unknown | |
| | | | | | | Blank | Not on certificate | |
| 492 | 1 | CA_ANEN | Anencephaly | 635 | R | | | |
| 493 | 1 | CA_MNSB | Meningomyelocele/Spina Bifida | 636 | R | | | |
| 494 | 1 | CA_CCHD | Cyanotic Congenital Heart Disease | 637 | R | | | |
| 495 | 1 | CA_CDH | Congenital Diaphragmatic Hernia | 638 | R | | | |
| 496 | 1 | CA_OMP | Omphalocele | 639 | R | | | |
| 497 | 1 | CA_GAST | Gastroschisis | 640 | R | | | |
| 498 | 1 | CA_LIMB | Limb Reduction Defect | 641 | R | | | |
| 499 | 1 | CA_CLEFT | Cleft Lip w/ or w/o Cleft Palate | 642 | R | | | |
| 500 | 1 | CA_CLPAL | Cleft Palate alone | 643 | R | | | |
| 501 | 1 | CA_DOWN | Downs Syndrome | 644 | R | C | Confirmed | |
| | | | | | | P | Pending | |
| | | | | | | N | No | |
| | | | | | | U | Unknown | |
| | | | | | | Blank | Not on certificate | |
| 502 | 1 | CA_DISOR | Suspected Chromosomal Disorder | 645 | R | C | Confirmed | |
| | | | | | | P | Pending | |
| | | | | | | N | No | |
| | | | | | | U | Unknown | |
| | | | | | | Blank | Not on certificate | |
| 503 | 1 | CA_HYPO | Hypospadias | 646 | R | Y | Yes, Anomaly reported | |
| | | | | | | N | No, Anomaly not reported | |
| | | | | | | U | Unknown | |
| | | | | | | Blank | Not on certificate | |
| 504-523 | 20 | <u>Congenital Anomalies of the Newborn</u> | | | | | | |
| | | The checkbox items indented below follow this structure: | | | | 1 | Anomaly reported | |
| | | The version is all 1989 Standard unless otherwise noted. | | | | 2 | Anomaly not reported | |
| | | | | | | 9 | Anomaly not classifiable | |
| | | | | | | Blank | Not on certificate | |
| 504 | 1 | UCA_ANEN | Anencephalus | 752 | U,R | | | |
| 505 | 1 | UCA_SPINA | Spina Bifida / Meningocele | 753 | U,R | | | |
| 506-512 | 7 | FILLER | Filler | | | | | |
| 513 | 1 | UCA_OMP | Omphalocele / Gastroschisis | 761 | U,R | | | |
| 514-517 | 4 | FILLER | Filler | | | | | |
| 518 | 1 | UCA_CELFTLP | Cleft Lip / Palate | 766 | U,R | | | |
| 519-522 | 4 | FILLER | Filler | | | | | |
| 523 | 1 | UCA_DOWNS | Downs Syndrome | 771 | U,R | | | |
| * 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 both the 1989 Revision of the U.S. Certificate of Live Birth; excludes data based on the 2003 Revision. | | | | | | |
| R | | Includes data based on both 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 | Rev* | Values | Definition |
|----------|-----|--|---|----------------------------|------|--------|---------------|
| 524-568 | 45 | FILLER | Filler | | | | |
| 569-771 | 203 | <u>Flag File for Reporting Flags</u> | | | | | |
| | | The reporting flags indented below follow this coding structure: | | | | 0 | Not reporting |
| | | | | | | 1 | 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 | | |
| 572 | 1 | FILLER | Filler | | | | |
| 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 | | |
| 576-581 | 6 | FILLER | Filler | | | | |
| 582 | 1 | F_RF_PDIAB | Prepregnancy Diabetes | | R | | |
| 583 | 1 | F_RF_GDIAB | Gestational Diabetes | | R | | |
| 584 | 1 | F_RF_PHYPER | Prepregnancy Hypertension | | R | | |
| 585 | 1 | F_RF_GHYPER | Gestational Hypertension | | R | | |
| 586 | 1 | F_RF_ECLAMP | Eclampsia | | R | | |
| 587 | 1 | F_RF_PPB | Previous Preterm Birth | | R | | |
| 588 | 1 | F_RF_PPO | Poor Pregnancy Outcome | | R | | |
| 589-592 | 4 | FILLER | Filler | | | | |
| 593 | 1 | F_RF_CESAR | Previous Cesarean | | R | | |
| 594 | 1 | F_RF_NCESAR | Number of Previous Cesareans | | R | | |
| 595-600 | 6 | FILLER | Filler | | | | |
| 601 | 1 | F_OB_CERVIC | Cervical Cerclage | | R | | |
| 602 | 1 | F_OB_TOCO | Tocolysis | | R | | |
| 603 | 1 | F_OB_SUCC | Successful External Cephalic Version | | R | | |
| 604 | 1 | F_OB_FAIL | Failed External Cephalic Version | | R | | |
| 605 | 1 | F_OL_RUPTURE | Premature Rupture of Membranes | | R | | |
| 606 | 1 | F_OL_PRECIP | Precipitous Labor | | R | | |
| 607 | 1 | F_OL_PROLONG | Prolonged Labor | | R | | |
| 608 | 1 | F_LD_INDUCT | Induction of Labor | | R | | |
| 609 | 1 | F_LD_AUGMENT | Augmentation of Labor | | R | | |
| 610 | 1 | F_LD_NVRTX | Non-Vertex Presentation | | R | | |
| 611 | 1 | F_LD_STEROIDS | Steroids | | R | | |
| 612 | 1 | F_LD_ANTIBIO | Antibiotics | | R | | |
| 613 | 1 | F_LD_CHORIO | Chorioamnionitis | | R | | |
| 614 | 1 | F_LD_MECON | Meconium Staining | | R | | |
| 615 | 1 | F_LD_FINTOL | Fetal Intolerance | | R | | |
| 616 | 1 | F_LD_ANESTH | Anesthesia | | R | | |
| 617 | 1 | F_MD_ATTFOR | Attempted Forceps | | R | | |
| 618 | 1 | F_MD_ATTVAC | Attempted Vacuum | | R | | |
| 619 | 1 | F_MD_PRESENT | Fetal Presentation | | R | | |

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| Position | Len | Field | Description | Reporting Flag Position | Rev* | Values | Definition |
|----------|-----|----------------|---|----------------------------|------|--------|------------|
| 620 | 1 | F_MD_ROUTE | Final Route and Method of Delivery | | R | | |
| 621 | 1 | F_MD_TRIAL | Trial of Labor Attempted | | R | | |
| 622-627 | 6 | FILLER | Filler | | | | |
| 628 | 1 | F_AB_VENT | Assisted Ventilation | | R | | |
| 629 | 1 | F_AB_VENT6 | Assisted Ventilation >6 hrs | | R | | |
| 630 | 1 | F_AB_NICU | Admission to NICU | | R | | |
| 631 | 1 | F_AB_SURFAC | Surfactant | | R | | |
| 632 | 1 | F_AB_ANTIBIO | Antibiotics | | R | | |
| 633 | 1 | F_AB_SEIZ | Seizures | | R | | |
| 634 | 1 | F_AB_INJ | Birth Injury | | R | | |
| 635 | 1 | F_CA_ANEN | Anencephaly | | R | | |
| 636 | 1 | F_CA_MENIN | Meningomyelocele/Spina Bifida | | R | | |
| 637 | 1 | F_CA_HEART | Cyanotic Congenital Heart Disease | | R | | |
| 638 | 1 | F_CA_HERNIA | Congenital Diaphragmatic Hernia | | R | | |
| 639 | 1 | F_CA_OMPHA | Omphalocele | | R | | |
| 640 | 1 | F_CA_GASTRO | Gastroschisis | | R | | |
| 641 | 1 | F_CA_LIMB | Limb Reduction Defect | | R | | |
| 642 | 1 | F_CA_CLEFTLP | Cleft Lip w/ or w/o Cleft Palate | | R | | |
| 643 | 1 | F_CA_CLEFT | Cleft Palate Alone | | R | | |
| 644 | 1 | F_CA_DOWNS | Downs Syndrome | | R | | |
| 645 | 1 | F_CA_CHROM | Suspected Chromosomal Disorder | | R | | |
| 646 | 1 | F_CA_HYPOS | Hypospadias | | R | | |
| 647 | 1 | F_MED | Mother's Education | | U | | |
| 648 | 1 | F_WTGAIN | Weight Gain | | U,R | | |
| 649-666 | 18 | FILLER | Filler | | | | |
| 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 | | |
| 670-683 | 14 | FILLER | Filler | | | | |
| 684 | 1 | F_URF_DIABETES | Diabetes | | U | | |
| 685-687 | 3 | FILLER | Filler | | | | |
| 688 | 1 | F_URF_CHYPER | Chronic Hypertension | | U | | |
| 689 | 1 | F_URF_PHYPER | Pregnancy Associated Hypertension | | U | | |
| 690 | 1 | F_URF_ECLAMP | Eclampsia | | U | | |
| 691-702 | 12 | FILLER | Filler | | | | |
| 703 | 1 | F_UOB_INDUCT | Induction of Labor | | U | | |
| 704 | 1 | FILLER | Filler | | | | |
| 705 | 1 | F_UOB_TOCOL | Tocolysis | | U | | |
| 706-711 | 6 | FILLER | Filler | | | | |
| 712 | 1 | F_ULD_MECONIUM | Meconium | | U | | |
| 713-717 | 5 | FILLER | Filler | | | | |
| 718 | 1 | F_ULD_PRECIP | Precipitous Labor | | U | | |
| 719-720 | 2 | FILLER | Filler | | | | |
| 721 | 1 | F_ULD_BREECH | Breech | | U | | |

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| Position | Len | Field | Description | Reporting Flag Position | Rev* | Values | Definition |
|----------|-----|---------------|------------------------------------|----------------------------|------|---|---|
| 722-729 | 8 | FILLER | Filler | | | | |
| 730 | 1 | F_U_VAGINAL | Vaginal | | U | | |
| 731 | 1 | F_U_VBAC | Vaginal after C-Section | | U | | |
| 732 | 1 | F_U_PRIMAC | Primary C-Section | | U | | |
| 733 | 1 | F_U_REPEAC | Repeat C-Section | | U | | |
| 734 | 1 | F_U_FORCEP | Forceps | | U | | |
| 735 | 1 | F_U_VACUUM | Vacuum | | U | | |
| 736-751 | 16 | FILLER | Filler | | | | |
| 752 | 1 | F_UCA_ANEN | Anencephalus | | U | | |
| 753 | 1 | F_UCA_SPINA | Spina Bifida / Meningocele | | U | | |
| 754-760 | 7 | FILLER | Filler | | | | |
| 761 | 1 | F_UCA_OMPHALO | Omphalocele / Gastroschisis | | U | | |
| 762-765 | 4 | FILLER | Filler | | | | |
| 766 | 1 | F_UCA_CLEFTLP | Cleft Lip / Palate | | U | | |
| 767-770 | 4 | FILLER | Filler | | | | |
| 771 | 1 | F_UCA_DOWNS | Downs Syndrome | | U | | |
| 772-867 | 96 | FILLER | Filler | | | | |
| 868 | 1 | FLGND | Match Status | | | | a. Matched birth/infant death record b. Surviving infant record c. Unmatched infant death record (code used only in unlinked file) |
| 869-871 | 3 | FILLER | Filler | | | | |
| 872-874 | 3 | AGED | Age at Death in Days | | | 000-365 | Number of days |
| 875 | 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) |
| 876-877 | 2 | AGER22 | Infant age recode 22 | | | Blank 01 02 03 04 05 06 07 08 | 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 |

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| Position | Len | Field | Description | Reporting Flag Position | Rev* | Values | Definition |
|----------|-----|---------|---|----------------------------|------|--------|--|
| | | | | | | 09 | 7-13 days |
| | | | | | | 10 | 14 – 20 days |
| | | | | | | 11 | 21 – 27 days |
| | | | | | | 12 | 1 month (includes not stated months) |
| | | | | | | 13 | 2 months |
| | | | | | | 14 | 3 months |
| | | | | | | 15 | 4 months |
| | | | | | | 16 | 5 months |
| | | | | | | 17 | 6 months |
| | | | | | | 18 | 7 months |
| | | | | | | 19 | 8 months |
| | | | | | | 20 | 9 months |
| | | | | | | 21 | 10 months |
| | | | | | | 22 | 11 months |
| 878 | 1 | MANNER | Manner of Death | | | 1 | Accident |
| | | | | | | 2 | Suicide |
| | | | | | | 3 | Homicide |
| | | | | | | 4 | Pending investigation |
| | | | | | | 5 | Could not determine |
| | | | | | | 6 | Self-inflicted |
| | | | | | | 7 | Natural |
| | | | | | | Blank | Not specified |
| 879 | 1 | DISPO | Method of Disposition | | | B | Burial |
| | | | | | | C | Cremation |
| | | | | | | O | Other |
| | | | | | | U | Unknown |
| 880 | 1 | AUTOPSY | Autopsy | | | Y | Yes |
| | | | | | | N | No |
| | | | | | | U | Unknown |
| 881 | 1 | FILLER | Filler | | | | |
| 882 | 1 | PLACE | Place of injury for causes W00-Y34, except Y06.- and Y07.- | | | 0 | Home |
| | | | | | | 1 | Residential institution |
| | | | | | | 2 | School, other institution and public administrative area |
| | | | | | | 3 | Sports and athletics area |
| | | | | | | 4 | Street and highway |
| | | | | | | 5 | Trade and service area |
| | | | | | | 6 | Industrial and construction area |
| | | | | | | 7 | Farm |
| | | | | | | 8 | Other Specified Places |

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| Position | Len | Field | Description | Reporting Flag Position | Rev* | Values | Definition |
|----------|-----|----------|--|----------------------------|------|------------|---|
| | | | | | | 9 Blank | Unspecified place Cause other than W00-Y34, except Y06.- and Y07.- |
| 883 | 1 | FILLER | Filler | | | | |
| 884-887 | 4 | UCOD | ICD Code (10th Revision) See the <u>International Classification of Diseases, 1992</u> Revision, Volume I. | | | | |
| 888 | 1 | FILLER | Filler | | | | |
| 889-891 | 3 | UCODR130 | 130 Infant Cause Recode | | | 001-158 | Code Range |
| 892 | 1 | FILLER | Filler | | | | |
| 893-900 | 8 | RECWT | Record Weight (no weights computed for possessions file) 1.XXXXXXX | | | | |

Here ends the cohort denominator-plus file. The numerator (linked) file continues below.

| | | | | | | | |
|----------|-----|--------|--|--|--|-------|------------|
| 901-902 | 2 | FILLER | Filler | | | | |
| 903-904 | 2 | EANUM | Number of Entity-Axis Conditions | | | 00-20 | Code range |
| 905-1044 | 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 | | | |

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| Position | Len | Field | Description | Reporting Flag Position | Rev* | Values | Definition |
|--|-----|--------|--|----------------------------|------|--------|------------|
| See Table 1 for a complete list of codes | | | | | | | |
| 905-911 | 7 | | 1 st Condition | | | | |
| 912-918 | 7 | | 2 nd Condition | | | | |
| 919-925 | 7 | | 3 rd Condition | | | | |
| 926-932 | 7 | | 4 th Condition | | | | |
| 933-939 | 7 | | 5 th Condition | | | | |
| 940-946 | 7 | | 6 th Condition | | | | |
| 947-953 | 7 | | 7 th Condition | | | | |
| 954-960 | 7 | | 8 th Condition | | | | |
| 961-967 | 7 | | 9 th Condition | | | | |
| 968-974 | 7 | | 10 th Condition | | | | |
| 975-981 | 7 | | 11 th Condition | | | | |
| 982-988 | 7 | | 12 th Condition | | | | |
| 989-995 | 7 | | 13 th Condition | | | | |
| 996-1002 | 7 | | 14 th Condition | | | | |
| 1003-1009 | 7 | | 15 th Condition | | | | |
| 1010-1016 | 7 | | 16 th Condition | | | | |
| 1017-1023 | 7 | | 17 th Condition | | | | |
| 1024-1030 | 7 | | 18 th Condition | | | | |
| 1031-1037 | 7 | | 19 th Condition | | | | |
| 1038-1044 | 7 | | 20 th Condition | | | | |
| 1045-1046 | 2 | FILLER | Filler | | | | |
| 1047-1048 | 2 | RANUM | Number of Record-Axis Conditions | | | 00-20 | Code range |
| 1049-1148 | 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 | | | | |
| 1049-1053 | 5 | | 1 st Condition | | | | |
| 1054-1058 | 5 | | 2 nd Condition | | | | |
| 1059-1063 | 5 | | 3 rd Condition | | | | |
| 1064-1068 | 5 | | 4 th Condition | | | | |
| 1069-1073 | 5 | | 5 th Condition | | | | |
| 1074-1078 | 5 | | 6 th Condition | | | | |
| 1079-1083 | 5 | | 7 th Condition | | | | |
| 1084-1088 | 5 | | 8 th Condition | | | | |
| * 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 both the 1989 Revision of the U.S. Certificate of Live Birth; excludes data based on the 2003 Revision. | | | | |
| R | | | Includes data based on both 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 | Rev* | Values | Definition |
|-----------|-----------|------------|------------------------------|----------------------------|------|--------|---|
| | 1089-1093 | 5 | 9 th Condition | | | | |
| | 1094-1098 | 5 | 10 th Condition | | | | |
| | 1099-1103 | 5 | 11 th Condition | | | | |
| | 1104-1108 | 5 | 12 th Condition | | | | |
| | 1109-1113 | 5 | 13 th Condition | | | | |
| | 1114-1118 | 5 | 14 th Condition | | | | |
| | 1119-1123 | 5 | 15 th Condition | | | | |
| | 1124-1128 | 5 | 16 th Condition | | | | |
| | 1129-1133 | 5 | 17 th Condition | | | | |
| | 1134-1138 | 5 | 18 th Condition | | | | |
| | 1139-1143 | 5 | 19 th Condition | | | | |
| | 1144-1148 | 5 | 20 th Condition | | | | |
| 1149-1150 | 2 | FILLER | Filler | | | | |
| 1151 | 1 | D_RESTATUS | Death 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 |

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| Position | Len | Field | Description | Reporting Flag Position | Rev* | Values | Definition |
|-----------|-----|-----------|--|-------------------------|------|-----------------------------|---|
| | | | | | | | 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. |
| | | | 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. |
| 1152-1153 | 2 | STOCCFIPD | State of Occurrence (FIPS) of Death (This item is available in the territory file only, geographic codes are not available in the U.S.file) | | | | |
| | | | | | | PR | Puerto Rico |
| | | | | | | VI | Virgin Islands |
| | | | | | | GU | Guam |
| 1154-1156 | 3 | CNTOCFIPD | County of Occurrence (FIPS) of Death 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. (This item is available in the territory file only, geographic codes are not available in the U.S.file) | | | | |
| | | | | | | 001-999 | Code range County of less than 250,000 |
| * 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 both the 1989 Revision of the U.S. Certificate of Live Birth; excludes data based on the 2003 Revision. | | | | |
| R | | | Includes data based on both 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 | Rev* | Values | Definition |
|-----------|-----|-----------|--|----------------------------|------|----------------------|---|
| 1157-1159 | 3 | FILLER | Filler | | | | |
| 1160-1161 | 2 | STRESFIPD | State of Residence (FIPS) (This item is available in the territory file only, geographic codes are not available in the U.S.file) | | | | |
| | | | Territories | | | PR VI GU | Puerto Rico Virgin Islands Guam |
| | | | Puerto Rico Occurrence | | | PR US,ZZ | Puerto Rico Foreign residents |
| | | | Virgin Islands Occurrence | | | VI US, ZZ | Virgin Islands Foreign residents |
| | | | Guam Occurrence | | | GU US ZZ | Guam U.S. resident. Also considered a resident of Guam. Foreign residents |
| 1162-1163 | 2 | FILLER | Filler | | | | |
| 1164-1165 | 2 | DRCNTY | State/Country of Residence of Death Recode (This item is available in the territory file only, geographic codes are not available in the U.S.file) | | | | |
| | | | Territorial residents | | | PR VI GU | Puerto Rico Virgin Islands Guam |
| | | | Foreign residents | | | CC MX CU YY | Canada Mexico Cuba Remainder of the world |
| | | | Puerto Rico Occurrence | | | PR US,ZZ | Puerto Rico Foreign residents |
| | | | Virgin Islands Occurrence | | | VI US, ZZ | Virgin Islands Foreign 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 both the 1989 Revision of the U.S. Certificate of Live Birth; excludes data based on the 2003 Revision.

R Includes data based on both 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 | Rev* | Values | Definition |
|-----------|-----|----------|---|----------------------------|------|---------------------------------|--|
| | | | Guam Occurrence | | | GU US ZZ | Guam U.S. resident. Also considered a resident of Guam Foreign residents |
| 1166-1167 | 3 | CNTYRFPD | County of Residence (FIPS) of Death 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. (This item is available in the territory file only, geographic codes are not available in the U.S.file) | | | 000 001-999 | Foreign residents Code range County of less than 250,000 |
| 1169-1181 | 13 | FILLER | Filler | | | | |
| 1182 | 1 | CNTRSPPD | Population Size of County of Residence of Death Based on the results of the 2000 Census (This item is available in the territory file only, geographic codes are not available in the U.S.file) | | | 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 of less than 250,000 Foreign residents |
| 1183-1185 | 3 | FILLER | Filler | | | | |
| 1186 | 1 | HOSPD | Place of Death and Decedent's Status | | | 1 2 3 4 5 6 7 | 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 |
| * 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 both the 1989 Revision of the U.S. Certificate of Live Birth; excludes data based on the 2003 Revision. | | | | |
| R | | | Includes data based on both 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 | Rev* | Values | Definition |
|-----------|-----|----------|-----------------------------|----------------------------|------|--|--|
| | | | | | | 9 | Place of death unknown |
| 1187 | 1 | WEEKDAYD | Day of Week of Death | | | 1 2 3 4 5 6 7 9 | Sunday Monday Tuesday Wednesday Thursday Friday Saturday Unknown |
| 1188-1191 | 4 | DTHYR | Death Year | | | 2009 2010 | 2009 2010 |
| 1192-1257 | 66 | FILLER | Filler | | | | |
| 1258-1259 | 2 | DOD_MM | 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 |

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

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

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, 2009 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 | 4137836 | 4130665 | 25819 | 25793 | 26172 | 26145 |
| Alabama | 61317 | 62475 | 518 | 521 | 518 | 521 |
| Alaska | 11202 | 11324 | 56 | 61 | 56 | 61 |
| Arizona | 93320 | 92798 | 561 | 555 | 570 | 564 |
| Arkansas | 38768 | 39808 | 287 | 292 | 289 | 294 |
| California | 527847 | 527020 | 2488 | 2477 | 2551 | 2540 |
| Colorado | 69036 | 68628 | 437 | 424 | 438 | 425 |
| Connecticut | 39481 | 38896 | 211 | 211 | 216 | 216 |
| Delaware | 11989 | 11559 | 100 | 97 | 100 | 97 |
| Dist of Columbia | 14200 | 9040 | 137 | 91 | 137 | 91 |
| Florida | 221635 | 221394 | 1495 | 1483 | 1502 | 1490 |
| Georgia | 142686 | 141377 | 1047 | 1048 | 1052 | 1053 |
| Hawaii | 18888 | 18887 | 116 | 113 | 119 | 116 |
| Idaho | 23253 | 23737 | 115 | 125 | 116 | 126 |
| Illinois | 167659 | 171163 | 1111 | 1161 | 1133 | 1183 |
| Indiana | 87520 | 86673 | 649 | 651 | 656 | 658 |
| Iowa | 39640 | 39701 | 167 | 177 | 167 | 177 |
| Kansas | 42512 | 41396 | 286 | 281 | 289 | 284 |
| Kentucky | 55594 | 57551 | 347 | 391 | 354 | 399 |
| Louisiana | 65108 | 64973 | 529 | 527 | 546 | 544 |
| Maine | 13354 | 13470 | 72 | 74 | 73 | 75 |
| Maryland | 72590 | 75059 | 508 | 534 | 509 | 535 |
| Massachusetts | 75445 | 75016 | 362 | 367 | 365 | 370 |
| Michigan | 116236 | 117294 | 880 | 880 | 885 | 885 |
| Minnesota | 70426 | 70646 | 331 | 317 | 332 | 318 |
| Mississippi | 41978 | 42901 | 413 | 436 | 414 | 437 |
| Missouri | 79593 | 78905 | 583 | 561 | 585 | 563 |
| Montana | 12203 | 12257 | 74 | 79 | 75 | 80 |
| Nebraska | 27198 | 26936 | 135 | 133 | 136 | 134 |
| Nevada | 37296 | 37612 | 226 | 228 | 231 | 233 |
| New Hampshire | 13389 | 13377 | 65 | 68 | 65 | 68 |
| New Jersey | 107086 | 110331 | 516 | 560 | 530 | 574 |
| New Mexico | 28315 | 29000 | 134 | 145 | 146 | 157 |
| New York | 123255 | 125768 | 662 | 698 | 676 | 712 |
| New York City | 126774 | 122342 | 646 | 614 | 646 | 615 |
| North Carolina | 128173 | 126845 | 982 | 973 | 986 | 977 |
| North Dakota | 10275 | 9001 | 55 | 55 | 55 | 55 |
| Ohio | 145517 | 144841 | 1098 | 1072 | 1123 | 1096 |
| Oklahoma | 53650 | 54553 | 397 | 406 | 409 | 418 |
| Oregon | 47685 | 47132 | 234 | 226 | 234 | 226 |
| Pennsylvania | 145812 | 146434 | 1060 | 1018 | 1065 | 1023 |
| Rhode Island | 12230 | 11442 | 95 | 70 | 95 | 70 |
| South Carolina | 57884 | 60620 | 414 | 435 | 414 | 435 |
| South Dakota | 12479 | 11934 | 84 | 74 | 84 | 74 |
| Tennessee | 87141 | 82211 | 709 | 653 | 709 | 653 |
| Texas | 408391 | 401977 | 2360 | 2340 | 2447 | 2426 |
| Utah | 55144 | 53887 | 293 | 276 | 296 | 279 |
| Vermont | 5776 | 6110 | 35 | 41 | 35 | 41 |
| Virginia | 103061 | 105059 | 711 | 731 | 713 | 733 |
| Washington | 89200 | 89313 | 414 | 410 | 415 | 411 |
| West Virginia | 21299 | 21268 | 167 | 168 | 167 | 168 |
| Wisconsin | 70090 | 70843 | 413 | 418 | 413 | 418 |
| Wyoming | 7236 | 7881 | 34 | 47 | 35 | 48 |
| Foreign Residents | - | 7171 | - | 26 | - | 27 |
| Puerto Rico | 44833 | 44773 | 356 | 352 | 356 | 352 |
| Virgin Islands | 1750 | 1687 | 11 | 14 | 11 | 14 |
| Guam | 3422 | 3414 | 41 | 41 | 41 | 41 |

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, 2009
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 races ¹ | | | | | | | | | | |
| Both sexes | | | | | | | | | | |
| Live births..... | 4,130,665 | 6,937 | 11,009 | 11,990 | 14,193 | 16,788 | 65,687 | 211,385 | 3,791,721 | 955 |
| Infant deaths..... | 26,145 | 5,913 | 4,700 | 1,644 | 979 | 763 | 1,639 | 2,179 | 8,219 | 108 |
| Infant mortality rate..... | 6.33 | 852.39 | 426.92 | 137.11 | 68.98 | 45.45 | 24.95 | 10.31 | 2.17 | 113.09 |
| Male | | | | | | | | | | |
| Live births..... | 2,113,856 | 3,565 | 5,693 | 6,160 | 7,231 | 8,521 | 31,647 | 96,564 | 1,953,964 | 511 |
| Infant deaths..... | 14,682 | 3,084 | 2,806 | 1,019 | 553 | 403 | 820 | 1,106 | 4,820 | 71 |
| Infant mortality rate..... | 6.95 | 865.08 | 492.89 | 165.42 | 76.48 | 47.29 | 25.91 | 11.45 | 2.47 | 138.94 |
| Female | | | | | | | | | | |
| Live births..... | 2,016,809 | 3,372 | 5,316 | 5,830 | 6,962 | 8,267 | 34,040 | 114,821 | 1,837,757 | 444 |
| Infant deaths..... | 11,463 | 2,829 | 1,894 | 625 | 426 | 360 | 820 | 1,072 | 3,399 | 37 |
| Infant mortality rate..... | 5.68 | 838.97 | 356.28 | 107.20 | 61.19 | 43.55 | 24.09 | 9.34 | 1.85 | 83.33 |
| White | | | | | | | | | | |
| Both sexes | | | | | | | | | | |
| Live births..... | 3,173,293 | 3,875 | 6,313 | 7,205 | 9,183 | 10,970 | 44,404 | 143,862 | 2,946,713 | 768 |
| Infant deaths..... | 16,771 | 3,292 | 2,752 | 1,017 | 669 | 496 | 1,135 | 1,504 | 5,851 | 56 |
| Infant mortality rate..... | 5.29 | 849.55 | 435.93 | 141.15 | 72.85 | 45.21 | 25.56 | 10.45 | 1.99 | 72.92 |
| Male | | | | | | | | | | |
| Live births..... | 1,625,436 | 1,967 | 3,278 | 3,771 | 4,744 | 5,626 | 21,541 | 66,105 | 1,517,999 | 405 |
| Infant deaths..... | 9,362 | 1,692 | 1,627 | 631 | 380 | 258 | 551 | 767 | 3,424 | 33 |
| Infant mortality rate..... | 5.76 | 860.19 | 496.34 | 167.33 | 80.10 | 45.86 | 25.58 | 11.60 | 2.26 | 81.48 |
| Female | | | | | | | | | | |
| Live births..... | 1,547,857 | 1,908 | 3,035 | 3,434 | 4,439 | 5,344 | 22,863 | 77,757 | 1,428,714 | 363 |
| Infant deaths..... | 7,410 | 1,600 | 1,124 | 386 | 289 | 239 | 584 | 737 | 2,427 | 23 |
| Infant mortality rate..... | 4.79 | 838.57 | 370.35 | 112.41 | 65.10 | 44.72 | 25.54 | 9.48 | 1.70 | 63.36 |
| Black | | | | | | | | | | |
| Both sexes | | | | | | | | | | |
| Live births..... | 657,618 | 2,696 | 4,148 | 4,060 | 4,202 | 4,727 | 16,831 | 51,133 | 569,682 | 139 |
| Infant deaths..... | 7,869 | 2,291 | 1,708 | 521 | 261 | 215 | 406 | 547 | 1,873 | 46 |
| Infant mortality rate..... | 11.97 | 849.78 | 411.76 | 128.33 | 62.11 | 45.48 | 24.12 | 10.70 | 3.29 | 330.94 |
| Male | | | | | | | | | | |
| Live births..... | 334,142 | 1,416 | 2,115 | 2,003 | 2,075 | 2,311 | 7,864 | 22,747 | 293,530 | 81 |
| Infant deaths..... | 4,483 | 1,224 | 1,025 | 312 | 149 | 120 | 219 | 279 | 1,122 | 33 |
| Infant mortality rate..... | 13.42 | 864.41 | 484.63 | 155.77 | 71.81 | 51.93 | 27.85 | 12.27 | 3.82 | 407.41 |
| Female | | | | | | | | | | |
| Live births..... | 323,476 | 1,280 | 2,033 | 2,057 | 2,127 | 2,416 | 8,967 | 28,386 | 276,152 | 58 |
| Infant deaths..... | 3,387 | 1,068 | 683 | 209 | 112 | 95 | 187 | 268 | 752 | 13 |
| Infant mortality rate..... | 10.47 | 834.38 | 335.96 | 101.60 | 52.66 | 39.32 | 20.85 | 9.44 | 2.72 | * |

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, 2009 birth cohort data

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

| Birthweight | Gestation | | | | | | | | | |
|-----------------------------|-----------|--------------|----------------|----------------|-------------|----------------|-------------|-------------|---------------------|---------------|
| | Total | <28 Weeks | 28-31 Weeks | 32-35 Weeks | 36 Weeks | 37-39 Weeks | 40 Weeks | 41 Weeks | 42 Weeks or more | Not Stated |
| All races ¹ | | | | | | | | | | |
| Total | | | | | | | | | | |
| Live births | 4,130,665 | 30,642 | 50,543 | 233,717 | 187,404 | 2,271,420 | 785,342 | 337,724 | 228,588 | 5,285 |
| Infant deaths | 26,145 | 11,771 | 2,127 | 2,499 | 1,037 | 5,814 | 1,414 | 630 | 643 | 211 |
| Infant mortality rate | 6.33 | 384.15 | 42.08 | 10.69 | 5.53 | 2.56 | 1.80 | 1.87 | 2.81 | 39.92 |
| Less than 2,500 grams | | | | | | | | | | |
| Live births | 337,989 | 29,475 | 38,583 | 114,942 | 40,825 | 91,547 | 11,183 | 4,923 | 5,927 | 584 |
| Infant deaths | 17,818 | 11,752 | 2,026 | 1,843 | 498 | 1,248 | 169 | 92 | 111 | 78 |
| Infant mortality rate | 52.72 | 398.71 | 52.51 | 16.03 | 12.20 | 13.63 | 15.11 | 18.69 | 18.73 | 133.56 |
| Less than 500 grams | | | | | | | | | | |
| Live births | 6,937 | 6,641 | 205 | 22 | 8 | 9 | 2 | 2 | 5 | 43 |
| Infant deaths | 5,913 | 5,729 | 124 | 19 | 2 | 5 | 1 | 2 | 3 | 27 |
| Infant mortality rate | 852.39 | 862.67 | 604.88 | * | * | * | * | * | * | 627.91 |
| 500-749 grams | | | | | | | | | | |
| Live births | 11,009 | 9,572 | 1,214 | 117 | 15 | 29 | 6 | 1 | 11 | 44 |
| Infant deaths | 4,700 | 4,300 | 315 | 36 | 6 | 13 | 1 | 1 | 6 | 21 |
| Infant mortality rate | 426.92 | 449.23 | 259.47 | 307.69 | * | * | * | * | * | 477.27 |
| 750-999 grams | | | | | | | | | | |
| Live births | 11,990 | 7,495 | 3,922 | 380 | 24 | 92 | 33 | 14 | 11 | 19 |
| Infant deaths | 1,644 | 1,248 | 327 | 49 | 3 | 9 | 3 | - | 2 | 3 |
| Infant mortality rate | 137.11 | 166.51 | 83.38 | 128.95 | * | * | * | * | * | * |
| 1,000-1,249 grams | | | | | | | | | | |
| Live births | 14,193 | 3,319 | 7,880 | 2,184 | 150 | 399 | 112 | 44 | 89 | 16 |
| Infant deaths | 979 | 304 | 439 | 168 | 14 | 38 | 3 | 2 | 4 | 6 |
| Infant mortality rate | 68.98 | 91.59 | 55.71 | 76.92 | * | 95.24 | * | * | * | * |
| 1,250-1,499 grams | | | | | | | | | | |
| Live births | 16,788 | 861 | 8,945 | 5,396 | 408 | 741 | 172 | 92 | 138 | 35 |
| Infant deaths | 763 | 77 | 372 | 207 | 27 | 53 | 8 | 6 | 7 | 6 |
| Infant mortality rate | 45.45 | 89.43 | 41.59 | 38.36 | 66.18 | 71.52 | * | * | * | * |
| 1,500-1,999 grams | | | | | | | | | | |
| Live births | 65,687 | 929 | 12,224 | 36,789 | 5,549 | 7,804 | 1,005 | 451 | 816 | 120 |
| Infant deaths | 1,639 | 70 | 310 | 668 | 156 | 346 | 36 | 22 | 25 | 5 |
| Infant mortality rate | 24.95 | 75.35 | 25.36 | 18.16 | 28.11 | 44.34 | 35.82 | 48.78 | 30.64 | * |
| 2,000-2,499 grams | | | | | | | | | | |
| Live births | 211,385 | 658 | 4,193 | 70,054 | 34,671 | 82,473 | 9,853 | 4,319 | 4,857 | 307 |
| Infant deaths | 2,179 | 24 | 139 | 695 | 289 | 783 | 116 | 59 | 64 | 9 |
| Infant mortality rate | 10.31 | 36.47 | 33.15 | 9.92 | 8.34 | 9.49 | 11.77 | 13.66 | 13.18 | * |
| 2,500-2,999 grams | | | | | | | | | | |
| Live births | 767,690 | 1,167 | 4,269 | 58,502 | 70,915 | 472,092 | 91,796 | 35,699 | 32,266 | 984 |
| Infant deaths | 2,916 | 18 | 69 | 384 | 294 | 1,611 | 270 | 119 | 145 | 7 |
| Infant mortality rate | 3.80 | * | 16.16 | 6.56 | 4.15 | 3.41 | 2.94 | 3.33 | 4.49 | * |
| 3,000-3,499 grams | | | | | | | | | | |
| Live births | 1,619,238 | - | 5,092 | 39,748 | 53,146 | 978,818 | 321,414 | 127,875 | 91,629 | 1,516 |
| Infant deaths | 3,318 | - | 25 | 184 | 181 | 1,952 | 537 | 213 | 217 | 9 |
| Infant mortality rate | 2.05 | - | 4.91 | 4.63 | 3.41 | 1.99 | 1.67 | 1.67 | 2.37 | * |

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, 2009 birth cohort data

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

| Birthweight | Gestation | | | | | | | | | |
|-----------------------------|-----------|-----------|-------------|-------------|----------|-------------|----------|----------|------------------|------------|
| | Total | <28 Weeks | 28-31 Weeks | 32-35 Weeks | 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 | 1,091,173 | - | 2,599 | 16,685 | 18,169 | 580,662 | 274,941 | 123,537 | 73,624 | 956 |
| Infant deaths | 1,528 | - | 7 | 64 | 46 | 807 | 327 | 153 | 118 | 5 |
| Infant mortality rate | 1.40 | - | * | 3.84 | 2.53 | 1.39 | 1.19 | 1.24 | 1.60 | * |
| 4,000-4,499 grams | | | | | | | | | | |
| Live births | 271,434 | - | - | 3,285 | 3,678 | 128,699 | 75,099 | 39,110 | 21,318 | 245 |
| Infant deaths | 374 | - | - | 15 | 14 | 155 | 94 | 49 | 46 | 1 |
| Infant mortality rate | 1.38 | - | - | * | * | 1.20 | 1.25 | 1.25 | 2.16 | * |
| 4,500-4,999 grams | | | | | | | | | | |
| Live births | 37,926 | - | - | 473 | 578 | 17,431 | 9,926 | 6,020 | 3,460 | 38 |
| Infant deaths | 55 | - | - | 6 | 3 | 27 | 9 | 5 | 4 | - |
| Infant mortality rate | 1.45 | - | - | * | * | 1.55 | * | * | * | - |
| 5,000 grams or more | | | | | | | | | | |
| Live births | 4,260 | - | - | 82 | 93 | 2,171 | 983 | 560 | 364 | 7 |
| Infant deaths | 27 | - | - | 3 | 1 | 13 | 7 | - | 1 | 2 |
| Infant mortality rate | 6.34 | - | - | * | * | * | * | - | * | * |
| Not stated | | | | | | | | | | |
| Live births | 955 | - | - | - | - | - | - | - | - | 955 |
| Infant deaths | 108 | - | - | - | - | - | - | - | - | 108 |
| Infant mortality rate | 113.09 | - | - | - | - | - | - | - | - | 113.09 |
| White | | | | | | | | | | |
| Total | | | | | | | | | | |
| Live births | 3,173,293 | 17,877 | 33,794 | 166,145 | 137,841 | 1,745,989 | 617,525 | 269,289 | 180,926 | 3,907 |
| Infant deaths | 16,771 | 6,783 | 1,393 | 1,743 | 694 | 4,104 | 1,014 | 473 | 445 | 121 |
| Infant mortality rate | 5.29 | 379.43 | 41.22 | 10.49 | 5.03 | 2.35 | 1.64 | 1.76 | 2.46 | 30.97 |
| Less than 2,500 grams | | | | | | | | | | |
| Live births | 225,812 | 17,153 | 25,487 | 79,630 | 27,854 | 60,477 | 7,459 | 3,303 | 4,082 | 367 |
| Infant deaths | 10,865 | 6,772 | 1,323 | 1,260 | 326 | 872 | 123 | 68 | 74 | 47 |
| Infant mortality rate | 48.12 | 394.80 | 51.91 | 15.82 | 11.70 | 14.42 | 16.49 | 20.59 | 18.13 | 128.07 |
| Less than 500 grams | | | | | | | | | | |
| Live births | 3,875 | 3,690 | 134 | 11 | 7 | 3 | 2 | 2 | 2 | 24 |
| Infant deaths | 3,292 | 3,188 | 75 | 9 | 2 | 1 | 1 | 2 | 1 | 12 |
| Infant mortality rate | 849.55 | 863.96 | 559.70 | * | * | * | * | * | * | * |
| 500-749 grams | | | | | | | | | | |
| Live births | 6,313 | 5,423 | 745 | 78 | 12 | 18 | 4 | 1 | 8 | 24 |
| Infant deaths | 2,752 | 2,511 | 187 | 23 | 6 | 6 | 1 | 1 | 4 | 12 |
| Infant mortality rate | 435.93 | 463.03 | 251.01 | 294.87 | * | * | * | * | * | * |
| 750-999 grams | | | | | | | | | | |
| Live births | 7,205 | 4,399 | 2,431 | 251 | 17 | 56 | 23 | 7 | 9 | 12 |
| Infant deaths | 1,017 | 746 | 224 | 34 | 2 | 6 | 3 | - | - | 2 |
| Infant mortality rate | 141.15 | 169.58 | 92.14 | 135.46 | * | * | * | * | * | * |
| 1,000-1,249 grams | | | | | | | | | | |
| Live births | 9,183 | 2,128 | 5,085 | 1,414 | 105 | 274 | 80 | 29 | 60 | 8 |
| Infant deaths | 669 | 212 | 294 | 116 | 12 | 25 | 2 | 2 | 1 | 4 |
| Infant mortality rate | 72.85 | 99.62 | 57.82 | 82.04 | * | 91.24 | * | * | * | * |

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, 2009 birth cohort data

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

| Birthweight | Gestation | | | | | | | | | |
|-----------------------|-----------|-----------|-------------|-------------|----------|-------------|----------|----------|------------------|------------|
| | Total | <28 Weeks | 28-31 Weeks | 32-35 Weeks | 36 Weeks | 37-39 Weeks | 40 Weeks | 41 Weeks | 42 Weeks or more | Not Stated |
| White | | | | | | | | | | |
| 1,250-1,499 grams | | | | | | | | | | |
| Live births | 10,970 | 556 | 5,873 | 3,477 | 268 | 474 | 134 | 67 | 99 | 22 |
| Infant deaths | 496 | 53 | 237 | 139 | 15 | 31 | 6 | 4 | 6 | 4 |
| Infant mortality rate | 45.21 | 95.32 | 40.35 | 39.98 | * | 65.40 | * | * | * | * |
| 1,500-1,999 grams | | | | | | | | | | |
| Live births | 44,404 | 574 | 8,524 | 24,815 | 3,711 | 5,173 | 685 | 284 | 564 | 74 |
| Infant deaths | 1,135 | 46 | 213 | 447 | 102 | 264 | 27 | 14 | 20 | 3 |
| Infant mortality rate | 25.56 | 80.14 | 24.99 | 18.01 | 27.49 | 51.03 | 39.42 | * | 35.46 | * |
| 2,000-2,499 grams | | | | | | | | | | |
| Live births | 143,862 | 383 | 2,695 | 49,584 | 23,734 | 54,479 | 6,531 | 2,913 | 3,340 | 203 |
| Infant deaths | 1,504 | 17 | 92 | 492 | 187 | 538 | 82 | 45 | 41 | 9 |
| Infant mortality rate | 10.45 | * | 34.14 | 9.92 | 7.88 | 9.88 | 12.56 | 15.45 | 12.28 | * |
| 2,500-2,999 grams | | | | | | | | | | |
| Live births | 535,934 | 724 | 2,754 | 42,265 | 51,350 | 327,023 | 63,256 | 25,027 | 22,878 | 657 |
| Infant deaths | 1,954 | 10 | 45 | 280 | 195 | 1,085 | 170 | 83 | 82 | 5 |
| Infant mortality rate | 3.65 | * | 16.34 | 6.62 | 3.80 | 3.32 | 2.69 | 3.32 | 3.58 | * |
| 3,000-3,499 grams | | | | | | | | | | |
| Live births | 1,239,262 | - | 3,574 | 28,573 | 40,691 | 750,795 | 245,035 | 98,799 | 70,688 | 1,107 |
| Infant deaths | 2,363 | - | 18 | 135 | 125 | 1,392 | 367 | 164 | 154 | 7 |
| Infant mortality rate | 1.91 | - | * | 4.72 | 3.07 | 1.85 | 1.50 | 1.66 | 2.18 | * |
| 3,500-3,999 grams | | | | | | | | | | |
| Live births | 901,872 | - | 1,979 | 12,680 | 14,426 | 480,684 | 227,407 | 102,524 | 61,408 | 764 |
| Infant deaths | 1,162 | - | 7 | 51 | 32 | 598 | 260 | 117 | 94 | 3 |
| Infant mortality rate | 1.29 | - | * | 4.02 | 2.22 | 1.24 | 1.14 | 1.14 | 1.53 | * |
| 4,000-4,499 grams | | | | | | | | | | |
| Live births | 233,401 | - | - | 2,577 | 2,976 | 110,355 | 64,857 | 33,920 | 18,512 | 204 |
| Infant deaths | 308 | - | - | 11 | 13 | 126 | 82 | 36 | 37 | 1 |
| Infant mortality rate | 1.32 | - | - | * | * | 1.14 | 1.26 | 1.06 | 2.00 | * |
| 4,500-4,999 grams | | | | | | | | | | |
| Live births | 32,698 | - | - | 364 | 470 | 14,848 | 8,698 | 5,237 | 3,048 | 33 |
| Infant deaths | 45 | - | - | 4 | 3 | 21 | 8 | 5 | 3 | - |
| Infant mortality rate | 1.38 | - | - | * | * | 1.41 | * | * | * | - |
| 5,000 grams or more | | | | | | | | | | |
| Live births | 3,546 | - | - | 56 | 74 | 1,807 | 813 | 479 | 310 | 7 |
| Infant deaths | 19 | - | - | 1 | 1 | 9 | 5 | - | 1 | 2 |
| Infant mortality rate | * | - | - | * | * | * | * | - | * | * |
| Not stated | | | | | | | | | | |
| Live births | 768 | - | - | - | - | - | - | - | - | 768 |
| Infant deaths | 56 | - | - | - | - | - | - | - | - | 56 |
| Infant mortality rate | 72.92 | - | - | - | - | - | - | - | - | 72.92 |
| Black | | | | | | | | | | |
| Total | | | | | | | | | | |
| Live births | 657,618 | 11,089 | 13,690 | 51,709 | 36,424 | 355,608 | 109,648 | 45,303 | 33,136 | 1,011 |
| Infant deaths | 7,869 | 4,335 | 629 | 612 | 262 | 1,368 | 315 | 128 | 141 | 79 |
| Infant mortality rate | 11.97 | 390.93 | 45.95 | 11.84 | 7.19 | 3.85 | 2.87 | 2.83 | 4.26 | 78.14 |

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, 2009 birth cohort data

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

| Birthweight | Gestation | | | | | | | | | |
|-----------------------------|-----------|--------------|----------------|----------------|-------------|----------------|-------------|-------------|---------------------|---------------|
| | Total | <28 Weeks | 28-31 Weeks | 32-35 Weeks | 36 Weeks | 37-39 Weeks | 40 Weeks | 41 Weeks | 42 Weeks or more | Not Stated |
| Black | | | | | | | | | | |
| Less than 2,500 grams | | | | | | | | | | |
| Live births | 87,797 | 10,731 | 10,795 | 27,471 | 9,759 | 23,252 | 2,871 | 1,275 | 1,461 | 182 |
| Infant deaths | 5,949 | 4,327 | 603 | 478 | 130 | 302 | 40 | 19 | 24 | 26 |
| Infant mortality rate | 67.76 | 403.22 | 55.86 | 17.40 | 13.32 | 12.99 | 13.93 | * | 16.43 | 142.86 |
| Less than 500 grams | | | | | | | | | | |
| Live births | 2,696 | 2,598 | 61 | 11 | 1 | 6 | - | - | 3 | 16 |
| Infant deaths | 2,291 | 2,221 | 42 | 10 | - | 4 | - | - | 2 | 12 |
| Infant mortality rate | 849.78 | 854.89 | 688.52 | * | * | * | - | - | * | * |
| 500-749 grams | | | | | | | | | | |
| Live births | 4,148 | 3,678 | 402 | 34 | 2 | 11 | 1 | - | 2 | 18 |
| Infant deaths | 1,708 | 1,573 | 108 | 11 | - | 7 | - | - | 1 | 8 |
| Infant mortality rate | 411.76 | 427.68 | 268.66 | * | * | * | * | - | * | * |
| 750-999 grams | | | | | | | | | | |
| Live births | 4,060 | 2,639 | 1,264 | 105 | 5 | 29 | 5 | 6 | 1 | 6 |
| Infant deaths | 521 | 416 | 89 | 11 | 1 | 2 | - | - | 1 | 1 |
| Infant mortality rate | 128.33 | 157.64 | 70.41 | * | * | * | * | * | * | * |
| 1,000-1,249 grams | | | | | | | | | | |
| Live births | 4,202 | 1,009 | 2,346 | 639 | 39 | 103 | 26 | 12 | 21 | 7 |
| Infant deaths | 261 | 72 | 128 | 44 | 2 | 10 | 1 | - | 2 | 2 |
| Infant mortality rate | 62.11 | 71.36 | 54.56 | 68.86 | * | * | * | * | * | * |
| 1,250-1,499 grams | | | | | | | | | | |
| Live births | 4,727 | 268 | 2,521 | 1,524 | 118 | 202 | 32 | 16 | 33 | 13 |
| Infant deaths | 215 | 21 | 112 | 55 | 11 | 12 | 2 | - | - | 2 |
| Infant mortality rate | 45.48 | 78.36 | 44.43 | 36.09 | * | * | * | * | - | * |
| 1,500-1,999 grams | | | | | | | | | | |
| Live births | 16,831 | 298 | 2,986 | 9,486 | 1,381 | 2,055 | 258 | 129 | 197 | 41 |
| Infant deaths | 406 | 18 | 82 | 182 | 39 | 65 | 6 | 7 | 5 | 1 |
| Infant mortality rate | 24.12 | * | 27.46 | 19.19 | 28.24 | 31.63 | * | * | * | * |
| 2,000-2,499 grams | | | | | | | | | | |
| Live births | 51,133 | 241 | 1,215 | 15,672 | 8,213 | 20,846 | 2,549 | 1,112 | 1,204 | 81 |
| Infant deaths | 547 | 6 | 43 | 165 | 77 | 201 | 31 | 12 | 13 | - |
| Infant mortality rate | 10.70 | * | 35.39 | 10.53 | 9.38 | 9.64 | 12.16 | * | * | - |
| 2,500-2,999 grams | | | | | | | | | | |
| Live births | 164,776 | 358 | 1,213 | 12,333 | 14,353 | 101,955 | 19,685 | 7,619 | 7,022 | 238 |
| Infant deaths | 779 | 8 | 20 | 81 | 77 | 427 | 83 | 34 | 47 | 2 |
| Infant mortality rate | 4.73 | * | 16.49 | 6.57 | 5.36 | 4.19 | 4.22 | 4.46 | 6.69 | * |
| 3,000-3,499 grams | | | | | | | | | | |
| Live births | 255,717 | - | 1,220 | 8,466 | 9,074 | 152,526 | 50,062 | 19,382 | 14,695 | 292 |
| Infant deaths | 749 | - | 6 | 37 | 45 | 441 | 135 | 39 | 43 | 2 |
| Infant mortality rate | 2.93 | - | * | 4.37 | 4.96 | 2.89 | 2.70 | 2.01 | 2.93 | * |
| 3,500-3,999 grams | | | | | | | | | | |
| Live births | 121,560 | - | 462 | 2,895 | 2,662 | 64,251 | 29,843 | 13,321 | 7,989 | 137 |
| Infant deaths | 280 | - | - | 9 | 9 | 167 | 45 | 29 | 19 | 2 |
| Infant mortality rate | 2.30 | - | - | * | * | 2.60 | 1.51 | 2.18 | * | * |

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, 2009 birth cohort data

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

| Birthweight | Gestation | | | | | | | | | |
|-----------------------------|-----------|-----------|-------------|-------------|----------|-------------|----------|----------|------------------|------------|
| | Total | <28 Weeks | 28-31 Weeks | 32-35 Weeks | 36 Weeks | 37-39 Weeks | 40 Weeks | 41 Weeks | 42 Weeks or more | Not Stated |
| Black | | | | | | | | | | |
| 4,000-4,499 grams | | | | | | | | | | |
| Live births | 23,982 | - | - | 471 | 499 | 11,735 | 6,372 | 3,182 | 1,703 | 20 |
| Infant deaths | 48 | - | - | 3 | 1 | 23 | 9 | 6 | 6 | - |
| Infant mortality rate | 2.00 | - | - | * | * | 1.96 | * | * | * | - |
| 4,500-4,999 grams | | | | | | | | | | |
| Live births | 3,231 | - | - | 59 | 69 | 1,667 | 718 | 476 | 239 | 3 |
| Infant deaths | 10 | - | - | 2 | - | 6 | 1 | - | 1 | - |
| Infant mortality rate | * | - | - | * | - | * | * | - | * | * |
| 5,000 grams or more | | | | | | | | | | |
| Live births | 416 | - | - | 14 | 8 | 222 | 97 | 48 | 27 | - |
| Infant deaths | 6 | - | - | 2 | - | 3 | 1 | - | - | - |
| Infant mortality rate | * | - | - | * | * | * | * | - | - | - |
| Not stated | | | | | | | | | | |
| Live births | 139 | - | - | - | - | - | - | - | - | 139 |
| Infant deaths | 46 | - | - | - | - | - | - | - | - | 46 |
| Infant mortality rate | 330.94 | - | - | - | - | - | - | - | - | 330.94 |

-/ Quality 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, 2009 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 races ¹ | | | | | | |
| Total (all birthweights)..... | 4,130,665 | 26,145 | 17,242 | 13,760 | 3,482 | 8,904 |
| Rate..... | | 6.33 | 4.17 | 3.33 | 0.84 | 2.16 |
| Less than 2,500 grams..... | 337,989 | 17,818 | 14,437 | 12,087 | 2,349 | 3,381 |
| Rate..... | | 52.72 | 42.71 | 35.76 | 6.95 | 10.00 |
| Less than 500 grams..... | 6,937 | 5,913 | 5,786 | 5,602 | 184 | 127 |
| Rate..... | | 852.39 | 834.08 | 807.55 | 26.52 | 18.31 |
| 500-749 grams..... | 11,009 | 4,700 | 3,979 | 3,179 | 800 | 721 |
| Rate..... | | 426.92 | 361.43 | 288.76 | 72.67 | 65.49 |
| 750-999 grams..... | 11,990 | 1,644 | 1,225 | 804 | 421 | 420 |
| Rate..... | | 137.11 | 102.17 | 67.06 | 35.11 | 35.03 |
| 1,000-1,249 grams..... | 14,193 | 979 | 730 | 506 | 224 | 249 |
| Rate..... | | 68.98 | 51.43 | 35.65 | 15.78 | 17.54 |
| 1,250-1,499 grams..... | 16,788 | 763 | 531 | 399 | 132 | 232 |
| Rate..... | | 45.45 | 31.63 | 23.77 | 7.86 | 13.82 |
| 1,500-1,999 grams..... | 65,687 | 1,639 | 1,063 | 808 | 255 | 576 |
| Rate..... | | 24.95 | 16.18 | 12.30 | 3.88 | 8.77 |
| 2,000-2,499 grams..... | 211,385 | 2,179 | 1,123 | 789 | 333 | 1,056 |
| Rate..... | | 10.31 | 5.31 | 3.73 | 1.58 | 5.00 |
| 2,500-2,999 grams..... | 767,690 | 2,916 | 1,086 | 667 | 419 | 1,830 |
| Rate..... | | 3.80 | 1.41 | 0.87 | 0.55 | 2.38 |
| 3,000-3,499 grams..... | 1,619,238 | 3,318 | 969 | 526 | 443 | 2,348 |
| Rate..... | | 2.05 | 0.60 | 0.32 | 0.27 | 1.45 |
| 3,500-3,999 grams..... | 1,091,173 | 1,528 | 469 | 264 | 205 | 1,059 |
| Rate..... | | 1.40 | 0.43 | 0.24 | 0.19 | 0.97 |
| 4,000-4,499 grams..... | 271,434 | 374 | 128 | 77 | 50 | 246 |
| Rate..... | | 1.38 | 0.47 | 0.28 | 0.18 | 0.91 |
| 4,500-4,999 grams..... | 37,926 | 55 | 24 | 17 | 7 | 30 |
| Rate..... | | 1.45 | 0.63 | * | * | 0.79 |
| 5,000 grams or more..... | 4,260 | 27 | 20 | 16 | 4 | 7 |
| Rate..... | | 6.34 | 4.69 | * | * | * |
| Not stated..... | 955 | 108 | 107 | 103 | 4 | 1 |
| Rate..... | | 113.09 | 112.04 | 107.85 | * | * |

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, 2009 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)..... | 3,173,293 | 16,771 | 11,024 | 8,758 | 2,265 | 5,748 |
| Rate..... | | 5.29 | 3.47 | 2.76 | 0.71 | 1.81 |
| Less than 2,500 grams..... | 225,812 | 10,865 | 8,942 | 7,490 | 1,452 | 1,923 |
| Rate..... | | 48.12 | 39.60 | 33.17 | 6.43 | 8.52 |
| Less than 500 grams..... | 3,875 | 3,292 | 3,230 | 3,124 | 106 | 63 |
| Rate..... | | 849.55 | 833.55 | 806.19 | 27.35 | 16.26 |
| 500-749 grams..... | 6,313 | 2,752 | 2,412 | 1,971 | 441 | 339 |
| Rate..... | | 435.93 | 382.07 | 312.21 | 69.86 | 53.70 |
| 750-999 grams..... | 7,205 | 1,017 | 807 | 547 | 260 | 210 |
| Rate..... | | 141.15 | 112.01 | 75.92 | 36.09 | 29.15 |
| 1,000-1,249 grams..... | 9,183 | 669 | 505 | 368 | 137 | 164 |
| Rate..... | | 72.85 | 54.99 | 40.07 | 14.92 | 17.86 |
| 1,250-1,499 grams..... | 10,970 | 496 | 368 | 277 | 91 | 128 |
| Rate..... | | 45.21 | 33.55 | 25.25 | 8.30 | 11.67 |
| 1,500-1,999 grams..... | 44,404 | 1,135 | 788 | 597 | 190 | 347 |
| Rate..... | | 25.56 | 17.75 | 13.44 | 4.28 | 7.81 |
| 2,000-2,499 grams..... | 143,862 | 1,504 | 832 | 605 | 227 | 672 |
| Rate..... | | 10.45 | 5.78 | 4.21 | 1.58 | 4.67 |
| 2,500-2,999 grams..... | 535,934 | 1,954 | 773 | 489 | 283 | 1,181 |
| Rate..... | | 3.65 | 1.44 | 0.91 | 0.53 | 2.20 |
| 3,000-3,499 grams..... | 1,239,262 | 2,363 | 737 | 418 | 319 | 1,626 |
| Rate..... | | 1.91 | 0.59 | 0.34 | 0.26 | 1.31 |
| 3,500-3,999 grams..... | 901,872 | 1,162 | 372 | 215 | 157 | 790 |
| Rate..... | | 1.29 | 0.41 | 0.24 | 0.17 | 0.88 |
| 4,000-4,499 grams..... | 233,401 | 308 | 108 | 67 | 40 | 200 |
| Rate..... | | 1.32 | 0.46 | 0.29 | 0.17 | 0.86 |
| 4,500-4,999 grams..... | 32,698 | 45 | 21 | 14 | 7 | 23 |
| Rate..... | | 1.38 | 0.64 | * | * | 0.70 |
| 5,000 grams or more..... | 3,546 | 19 | 16 | 13 | 3 | 3 |
| Rate..... | | * | * | * | * | * |
| Not stated..... | 768 | 56 | 55 | 51 | 4 | 1 |
| Rate..... | | 72.92 | 71.61 | 66.41 | * | * |

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, 2009 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)..... | 657,618 | 7,869 | 5,231 | 4,202 | 1,028 | 2,639 |
| Rate..... | | 11.97 | 7.95 | 6.39 | 1.56 | 4.01 |
| Less than 2,500 grams..... | 87,797 | 5,949 | 4,685 | 3,908 | 777 | 1,264 |
| Rate..... | | 67.76 | 53.36 | 44.51 | 8.85 | 14.40 |
| Less than 500 grams..... | 2,696 | 2,291 | 2,237 | 2,163 | 74 | 54 |
| Rate..... | | 849.78 | 829.75 | 802.30 | 27.45 | 20.03 |
| 500-749 grams..... | 4,148 | 1,708 | 1,365 | 1,041 | 324 | 343 |
| Rate..... | | 411.76 | 329.07 | 250.96 | 78.11 | 82.69 |
| 750-999 grams..... | 4,060 | 521 | 338 | 205 | 133 | 183 |
| Rate..... | | 128.33 | 83.25 | 50.49 | 32.76 | 45.07 |
| 1,000-1,249 grams..... | 4,202 | 261 | 189 | 112 | 76 | 73 |
| Rate..... | | 62.11 | 44.98 | 26.65 | 18.09 | 17.37 |
| 1,250-1,499 grams..... | 4,727 | 215 | 126 | 92 | 34 | 89 |
| Rate..... | | 45.48 | 26.66 | 19.46 | 7.19 | 18.83 |
| 1,500-1,999 grams..... | 16,831 | 406 | 200 | 145 | 55 | 206 |
| Rate..... | | 24.12 | 11.88 | 8.62 | 3.27 | 12.24 |
| 2,000-2,499 grams..... | 51,133 | 547 | 230 | 150 | 80 | 317 |
| Rate..... | | 10.70 | 4.50 | 2.93 | 1.56 | 6.20 |
| 2,500-2,999 grams..... | 164,776 | 779 | 239 | 127 | 112 | 540 |
| Rate..... | | 4.73 | 1.45 | 0.77 | 0.68 | 3.28 |
| 3,000-3,499 grams..... | 255,717 | 749 | 167 | 73 | 94 | 582 |
| Rate..... | | 2.93 | 0.65 | 0.29 | 0.37 | 2.28 |
| 3,500-3,999 grams..... | 121,560 | 280 | 74 | 34 | 40 | 207 |
| Rate..... | | 2.30 | 0.61 | 0.28 | 0.33 | 1.70 |
| 4,000-4,499 grams..... | 23,982 | 48 | 14 | 9 | 5 | 34 |
| Rate..... | | 2.00 | * | * | * | 1.42 |
| 4,500-4,999 grams..... | 3,231 | 10 | 3 | 3 | - | 7 |
| Rate..... | | * | * | * | - | * |
| 5,000 grams or more..... | 416 | 6 | 2 | 2 | - | 4 |
| Rate..... | | * | * | * | - | * |
| Not stated..... | 139 | 46 | 46 | 46 | - | - |
| Rate..... | | 330.94 | 330.94 | 330.94 | - | - |

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, 2008 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 | 4,130,665 | 26,145 632.95 | 17,242 417.41 | 13,760 333.12 | 3,482 84.30 | 8,904 215.56 |
| Congenital malformations (Q00-Q99)..... | | 5,341 129.30 | 3,779 91.49 | 2,924 70.79 | 855 20.70 | 1,562 37.81 |
| Short gestation and low birthweight nec (P07)..... | | 4,510 109.18 | 4,410 106.76 | 4,292 103.91 | 118 2.86 | 100 2.42 |
| Sudden infant death syndrome (R95)..... | | 2,210 53.50 | 188 4.55 | 37 0.90 | 152 3.68 | 2,022 48.95 |
| Maternal complications of pregnancy (P01)..... | | 1,615 39.10 | 1,604 38.83 | 1,583 38.32 | 21 0.51 | 10 * |
| Complications of placenta, cord, membranes (P02)..... | | 1,051 25.44 | 1,040 25.18 | 1,006 24.35 | 34 0.82 | 11 * |
| Respiratory distress of newborn (P22)..... | | 586 14.19 | 579 14.02 | 457 11.06 | 121 2.93 | 7 * |
| Accidents (unintentional injuries) (V01-X59)..... | | 1,136 27.50 | 125 3.03 | 34 0.82 | 90 2.18 | 1,011 24.48 |
| Bacterial sepsis of newborn (P36)..... | | 665 16.10 | 633 15.32 | 261 6.32 | 372 9.01 | 32 0.77 |
| Diseases of the circulatory system (I00-I99)..... | | 557 13.48 | 121 2.93 | 58 1.40 | 62 1.50 | 436 10.56 |
| Intrauterine hypoxia, birth asphyxia (P20-P21)..... | | 323 7.82 | 306 7.41 | 231 5.59 | 74 1.79 | 17 * |
| All other causes..... | | 8,153 197.38 | 4,457 107.90 | 2,875 69.60 | 1,582 38.30 | 3,696 89.48 |
| Less than 2,500 grams | | | | | | |
| All causes | 337,989 | 17,818 5,271.77 | 14,437 4,271.44 | 12,087 3,576.15 | 2,349 694.99 | 3,381 1,000.33 |
| Congenital malformations (Q00-Q99)..... | | 3,336 987.01 | 2,603 770.14 | 2,150 636.12 | 453 134.03 | 733 216.87 |
| Short gestation and low birthweight nec (P07)..... | | 4,421 1,308.03 | 4,324 1,279.33 | 4,207 1,244.72 | 117 34.62 | 97 28.70 |
| Sudden infant death syndrome (R95)..... | | 443 131.07 | 38 11.24 | 13 * | 25 7.40 | 404 119.53 |
| Maternal complications of pregnancy (P01)..... | | 1,571 464.81 | 1,562 462.15 | 1,541 455.93 | 21 6.21 | 9 * |
| Complications of placenta, cord, membranes (P02)..... | | 964 285.22 | 956 282.85 | 933 276.04 | 23 6.80 | 8 * |
| Respiratory distress of newborn (P22)..... | | 576 170.42 | 569 168.35 | 449 132.84 | 120 35.50 | 6 * |
| Accidents (unintentional injuries) (V01-X59)..... | | 193 57.10 | 20 5.92 | 11 * | 9 * | 172 50.89 |
| Bacterial sepsis of newborn (P36)..... | | 585 173.08 | 557 164.80 | 213 63.02 | 343 101.48 | 28 8.28 |
| Diseases of the circulatory system (I00-I99)..... | | 268 79.29 | 65 19.23 | 37 10.95 | 28 8.28 | 203 60.06 |

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, 2008 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)..... | | 216 63.91 | 210 62.13 | 166 49.11 | 44 13.02 | 6 * |
| All other causes..... | | 5,246 1,552.12 | 3,532 1,045.00 | 2,366 700.02 | 1,165 344.69 | 1,714 507.12 |
| 2,500 grams or more | | | | | | |
| All causes | 3,791,721 | 8,219 216.76 | 2,697 71.13 | 1,569 41.38 | 1,129 29.78 | 5,522 145.63 |
| Congenital malformations (Q00-Q99)..... | | 1,999 52.72 | 1,171 30.88 | 769 20.28 | 402 10.60 | 828 21.84 |
| Short gestation and low birthweight nec (P07)..... | | 35 0.92 | 32 0.84 | 31 0.82 | 1 * | 3 * |
| Sudden infant death syndrome (R95)..... | | 1,768 46.63 | 150 3.96 | 23 0.61 | 127 3.35 | 1,618 42.67 |
| Maternal complications of pregnancy (P01)..... | | 29 0.76 | 27 0.71 | 27 0.71 | - - | 1 * |
| Complications of placenta, cord, membranes (P02)..... | | 78 2.06 | 75 1.98 | 64 1.69 | 11 * | 3 * |
| Respiratory distress of newborn (P22)..... | | 10 * | 9 * | 8 * | 1 * | 1 * |
| Accidents (unintentional injures) (V01-X59)..... | | 942 24.84 | 104 2.74 | 22 0.58 | 81 2.14 | 838 22.10 |
| Bacterial sepsis of newborn (P36)..... | | 80 2.11 | 76 2.00 | 48 1.27 | 28 0.74 | 4 * |
| Diseases of the circulatory system (I00-I99)..... | | 289 7.62 | 56 1.48 | 22 0.58 | 34 0.90 | 233 6.14 |
| Intrauterine hypoxia, birth asphyxia (P20-P21)..... | | 105 2.77 | 94 2.48 | 64 1.69 | 30 0.79 | 11 * |
| All other causes..... | | 2,883 76.03 | 902 23.79 | 490 12.92 | 413 10.89 | 1,981 52.25 |
| Not stated birthweight | | | | | | |
| All causes | 955 | 108 11,308.90 | 107 11,204.19 | 103 10,785.34 | 4 * | 1 * |
| Congenital malformations (Q00-Q99)..... | | 5 * | 5 * | 5 * | - - | - - |
| Short gestation and low birthweight nec (P07)..... | | 54 5,654.45 | 54 5,654.45 | 54 5,654.45 | - - | - - |
| Sudden infant death syndrome (R95)..... | | - - | - - | - - | - - | - - |
| Maternal complications of pregnancy (P01)..... | | 15 * | 15 * | 15 * | - - | - - |
| Complications of placenta, cord, membranes (P02)..... | | 8 * | 8 * | 8 * | - - | - - |
| Respiratory distress of newborn (P22)..... | | - - | - - | - - | - - | - - |
| Accidents (unintentional injures) (V01-X59)..... | | 1 * | 1 * | 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, 2008 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)..... | - | - | - | - | - | - |
| Intrauterine hypoxia, birth asphyxia (P20-P21)..... | 1 | 1 | 1 | 1 | - | - |
| | * | * | * | * | - | - |
| All other causes..... | 24 | 23 | 19 | 4 | 1 | 1 |
| | 2,513.09 | 2,408.38 | * | * | * | * |
| White | | | | | | |
| All birthweights | | | | | | |
| All causes | 2,976,110 | 15,573 | 10,182 | 8,060 | 2,122 | 5,391 |
| | | 523.27 | 342.12 | 270.82 | 71.30 | 181.14 |
| Congenital malformations (Q00-Q99)..... | | 3,645 | 2,640 | 2,071 | 569 | 1,005 |
| | | 122.48 | 88.71 | 69.59 | 19.12 | 33.77 |
| Short gestation and low birthweight nec (P07)..... | | 2,271 | 2,226 | 2,154 | 72 | 44 |
| | | 76.31 | 74.80 | 72.38 | 2.42 | 1.48 |
| Sudden infant death syndrome (R95)..... | | 1,393 | 118 | 23 | 94 | 1,275 |
| | | 46.81 | 3.96 | 0.77 | 3.16 | 42.84 |
| Maternal complications of pregnancy (P01)..... | | 889 | 882 | 874 | 8 | 7 |
| | | 29.87 | 29.64 | 29.37 | * | * |
| Complications of placenta, cord, membranes (P02)..... | | 629 | 624 | 597 | 27 | 5 |
| | | 21.13 | 20.97 | 20.06 | 0.91 | * |
| Respiratory distress of newborn (P22)..... | | 319 | 314 | 252 | 61 | 5 |
| | | 10.72 | 10.55 | 8.47 | 2.05 | * |
| Accidents (unintentional injures) (V01-X59)..... | | 704 | 89 | 23 | 65 | 615 |
| | | 23.66 | 2.99 | 0.77 | 2.18 | 20.66 |
| Bacterial sepsis of newborn (P36)..... | | 364 | 345 | 151 | 194 | 19 |
| | | 12.23 | 11.59 | 5.07 | 6.52 | * |
| Diseases of the circulatory system (I00-I99)..... | | 356 | 76 | 33 | 43 | 280 |
| | | 11.96 | 2.55 | 1.11 | 1.44 | 9.41 |
| Intrauterine hypoxia, birth asphyxia (P20-P21)..... | | 207 | 195 | 150 | 45 | 12 |
| | | 6.96 | 6.55 | 5.04 | 1.51 | * |
| All other causes..... | | 4,797 | 2,674 | 1,731 | 943 | 2,123 |
| | | 161.18 | 89.85 | 58.16 | 31.69 | 71.33 |
| Less than 2,500 grams | | | | | | |
| All causes | 211,244 | 10,022 | 8,249 | 6,891 | 1,358 | 1,773 |
| | | 4,744.28 | 3,904.96 | 3,262.10 | 642.86 | 839.31 |
| Congenital malformations (Q00-Q99)..... | | 2,230 | 1,800 | 1,502 | 298 | 431 |
| | | 1,055.65 | 852.10 | 711.03 | 141.07 | 204.03 |
| Short gestation and low birthweight nec (P07)..... | | 2,224 | 2,182 | 2,111 | 71 | 42 |
| | | 1,052.81 | 1,032.93 | 999.32 | 33.61 | 19.88 |
| Sudden infant death syndrome (R95)..... | | 227 | 19 | 8 | 11 | 207 |
| | | 107.46 | * | * | * | 97.99 |
| Maternal complications of pregnancy (P01)..... | | 869 | 863 | 855 | 8 | 6 |
| | | 411.37 | 408.53 | 404.75 | * | * |

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, 2008 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)..... | | 570 269.83 | 565 267.46 | 546 258.47 | 19 * | 5 * |
| Respiratory distress of newborn (P22)..... | | 313 148.17 | 309 146.28 | 248 117.40 | 60 28.40 | 4 * |
| Accidents (unintentional injures) (V01-X59)..... | | 100 47.34 | 9 * | 3 * | 6 * | 91 43.08 |
| Bacterial sepsis of newborn (P36)..... | | 313 148.17 | 297 140.60 | 120 56.81 | 177 83.79 | 16 * |
| Diseases of the circulatory system (I00-I99)..... | | 154 72.90 | 39 18.46 | 20 9.47 | 19 * | 115 54.44 |
| Intrauterine hypoxia, birth asphyxia (P20-P21)..... | | 130 61.54 | 125 59.17 | 103 48.76 | 22 10.41 | 5 * |
| All other causes..... | | 2,891 1,368.56 | 2,041 966.18 | 1,374 650.43 | 667 315.75 | 850 402.38 |
| 2,500 grams or more | | | | | | |
| All causes | 2,764,388 | 5,506 199.18 | 1,889 68.33 | 1,129 40.84 | 761 27.53 | 3,617 130.84 |
| Congenital malformations (Q00-Q99)..... | | 1,413 51.11 | 838 30.31 | 567 20.51 | 272 9.84 | 574 20.76 |
| Short gestation and low birthweight nec (P07)..... | | 24 0.87 | 22 0.80 | 21 0.76 | 1 * | 2 * |
| Sudden infant death syndrome (R95)..... | | 1,166 42.18 | 99 3.58 | 15 * | 83 3.00 | 1,068 38.63 |
| Maternal complications of pregnancy (P01)..... | | 17 * | 16 * | 16 * | - - | 1 * |
| Complications of placenta, cord, membranes (P02)..... | | 54 1.95 | 54 1.95 | 46 1.66 | 8 * | - - |
| Respiratory distress of newborn (P22)..... | | 6 * | 5 * | 4 * | 1 * | 1 * |
| Accidents (unintentional injures) (V01-X59)..... | | 603 21.81 | 79 2.86 | 19 * | 59 2.13 | 524 18.96 |
| Bacterial sepsis of newborn (P36)..... | | 51 1.84 | 48 1.74 | 31 1.12 | 17 * | 3 * |
| Diseases of the circulatory system (I00-I99)..... | | 202 7.31 | 37 1.34 | 13 * | 24 0.87 | 165 5.97 |
| Intrauterine hypoxia, birth asphyxia (P20-P21)..... | | 76 2.75 | 69 2.50 | 46 1.66 | 23 0.83 | 7 * |
| All other causes..... | | 1,894 68.51 | 622 22.50 | 350 12.66 | 272 9.84 | 1,272 46.01 |
| Not stated birthweight | | | | | | |
| All causes | 478 | 45 9,414.23 | 44 9,205.02 | 41 8,577.41 | 3 * | 1 * |
| Congenital malformations (Q00-Q99)..... | | 2 * | 2 * | 2 * | - - | - - |
| Short gestation and low birthweight nec (P07)..... | | 22 4,602.51 | 22 4,602.51 | 22 4,602.51 | - - | - - |

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, 2008 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)..... | - | - | - | - | - | - |
| Maternal complications of pregnancy (P01)..... | 2 | 2 | 2 | 2 | - | - |
| Complications of placenta, cord, membranes (P02)..... | 5 | 5 | 5 | 5 | - | - |
| Respiratory distress of newborn (P22)..... | - | - | - | - | - | - |
| Accidents (unintentional injuries) (V01-X59)..... | 1 | 1 | 1 | 1 | - | - |
| Bacterial sepsis of newborn (P36)..... | - | - | - | - | - | - |
| Diseases of the circulatory system (I00-I99)..... | - | - | - | - | - | - |
| Intrauterine hypoxia, birth asphyxia (P20-P21)..... | 1 | 1 | 1 | 1 | - | - |
| All other causes..... | 11 | 10 | 7 | 3 | 1 | 1 |
| Black | | | | | | |
| All birthweights | | | | | | |
| All causes | 633,165 | 7,679 | 5,092 | 4,086 | 1,006 | 2,587 |
| | | 1,212.80 | 804.21 | 645.33 | 158.88 | 408.58 |
| Congenital malformations (Q00-Q99)..... | | 996 | 660 | 471 | 190 | 336 |
| | | 157.30 | 104.24 | 74.39 | 30.01 | 53.07 |
| Short gestation and low birthweight nec (P07)..... | | 1,766 | 1,720 | 1,679 | 41 | 45 |
| | | 278.92 | 271.65 | 265.18 | 6.48 | 7.11 |
| Sudden infant death syndrome (R95)..... | | 635 | 53 | 7 | 46 | 581 |
| | | 100.29 | 8.37 | * | 7.27 | 91.76 |
| Maternal complications of pregnancy (P01)..... | | 527 | 524 | 512 | 12 | 3 |
| | | 83.23 | 82.76 | 80.86 | * | * |
| Complications of placenta, cord, membranes (P02)..... | | 294 | 292 | 286 | 6 | 2 |
| | | 46.43 | 46.12 | 45.17 | * | * |
| Respiratory distress of newborn (P22)..... | | 207 | 205 | 155 | 50 | 2 |
| | | 32.69 | 32.38 | 24.48 | 7.90 | * |
| Accidents (unintentional injuries) (V01-X59)..... | | 338 | 28 | 8 | 20 | 310 |
| | | 53.38 | 4.42 | * | 3.16 | 48.96 |
| Bacterial sepsis of newborn (P36)..... | | 236 | 225 | 82 | 142 | 11 |
| | | 37.27 | 35.54 | 12.95 | 22.43 | * |
| Diseases of the circulatory system (I00-I99)..... | | 147 | 29 | 19 | 10 | 118 |
| | | 23.22 | 4.58 | * | * | 18.64 |
| Intrauterine hypoxia, birth asphyxia (P20-P21)..... | | 84 | 79 | 56 | 23 | 5 |
| | | 13.27 | 12.48 | 8.84 | 3.63 | * |
| All other causes..... | | 2,450 | 1,276 | 810 | 466 | 1,174 |
| | | 386.94 | 201.53 | 127.93 | 73.60 | 185.42 |
| Less than 2,500 grams | | | | | | |
| All causes | 85,785 | 5,805 | 4,559 | 3,797 | 763 | 1,245 |
| | | 6,766.92 | 5,314.45 | 4,426.18 | 889.43 | 1,451.30 |

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, 2008 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)..... | | 668 778.69 | 473 551.38 | 367 427.81 | 105 122.40 | 196 228.48 |
| Short gestation and low birthweight nec (P07)..... | | 1,730 2,016.67 | 1,686 1,965.38 | 1,645 1,917.58 | 41 47.79 | 44 51.29 |
| Sudden infant death syndrome (R95)..... | | 184 214.49 | 15 * | 2 * | 13 * | 168 195.84 |
| Maternal complications of pregnancy (P01)..... | | 512 596.84 | 508 592.18 | 496 578.19 | 12 * | 3 * |
| Complications of placenta, cord, membranes (P02)..... | | 277 322.90 | 275 320.57 | 271 315.91 | 4 * | 2 * |
| Respiratory distress of newborn (P22)..... | | 206 240.14 | 204 237.80 | 154 179.52 | 50 58.29 | 2 * |
| Accidents (unintentional injures) (V01-X59)..... | | 80 93.26 | 7 * | 5 * | 2 * | 73 85.10 |
| Bacterial sepsis of newborn (P36)..... | | 219 255.29 | 208 242.47 | 71 82.77 | 136 158.54 | 11 * |
| Diseases of the circulatory system (I00-I99)..... | | 96 111.91 | 20 23.31 | 13 * | 7 * | 76 88.59 |
| Intrauterine hypoxia, birth asphyxia (P20-P21)..... | | 66 76.94 | 65 75.77 | 47 54.79 | 18 * | 1 * |
| All other causes..... | | 1,768 2,060.97 | 1,099 1,281.11 | 725 845.14 | 374 435.97 | 669 779.86 |
| 2,500 grams or more | | | | | | |
| All causes | 547,276 | 1,829 334.20 | 487 88.99 | 243 44.40 | 244 44.58 | 1,342 245.21 |
| Congenital malformations (Q00-Q99)..... | | 326 59.57 | 186 33.99 | 101 18.46 | 84 15.35 | 140 25.58 |
| Short gestation and low birthweight nec (P07)..... | | 9 * | 8 * | 8 * | - - | 1 * |
| Sudden infant death syndrome (R95)..... | | 451 82.41 | 38 6.94 | 5 * | 33 6.03 | 413 75.46 |
| Maternal complications of pregnancy (P01)..... | | 6 * | 6 * | 6 * | - - | - - |
| Complications of placenta, cord, membranes (P02)..... | | 15 * | 15 * | 13 * | 2 * | - - |
| Respiratory distress of newborn (P22)..... | | 1 * | 1 * | 1 * | - - | - - |
| Accidents (unintentional injures) (V01-X59)..... | | 258 47.14 | 21 3.84 | 3 * | 18 * | 237 43.31 |
| Bacterial sepsis of newborn (P36)..... | | 17 * | 17 * | 11 * | 6 * | - - |
| Diseases of the circulatory system (I00-I99)..... | | 52 9.50 | 9 * | 6 * | 3 * | 42 7.67 |
| Intrauterine hypoxia, birth asphyxia (P20-P21)..... | | 18 * | 14 * | 9 * | 5 * | 4 * |
| All other causes..... | | 676 123.52 | 171 31.25 | 79 14.44 | 92 16.81 | 504 92.09 |

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, 2008 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 | 104 | 45 | 45 | 45 | - |
| | | 43,269.23 | 43,269.23 | 43,269.23 | - |
| Congenital malformations (Q00-Q99)..... | | 2 | 2 | 2 | - |
| | | * | * | * | - |
| Short gestation and low birthweight nec (P07)..... | | 26 | 26 | 26 | - |
| | | 25,000.00 | 25,000.00 | 25,000.00 | - |
| Sudden infant death syndrome (R95)..... | | - | - | - | - |
| | | - | - | - | - |
| Maternal complications of pregnancy (P01)..... | | 9 | 9 | 9 | - |
| | | * | * | * | - |
| Complications of placenta, cord, membranes (P02)..... | | 2 | 2 | 2 | - |
| | | * | * | * | - |
| Respiratory distress of newborn (P22)..... | | - | - | - | - |
| | | - | - | - | - |
| Accidents (unintentional injures) (V01-X59)..... | | - | - | - | - |
| | | - | - | - | - |
| Bacterial sepsis of newborn (P36)..... | | - | - | - | - |
| | | - | - | - | - |
| Diseases of the circulatory system (I00-I99)..... | | - | - | - | - |
| | | - | - | - | - |
| Intrauterine hypoxia, birth asphyxia (P20-P21)..... | | - | - | - | - |
| | | - | - | - | - |
| All other causes..... | | 6 | 6 | 6 | - |
| | | * | * | * | - |

-/ Quality zero.

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

¹/ Includes races other than white and black.