Public Use Data File Documentation

2005 Period Linked Birth/Infant Death Data Set

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

2005 Period 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 2005 Period Linked Birth/Infant Death Data Set <u>Technical Appendix for the 2005 Natality File</u> (in Birth User's Guide) <u>Deaths: Final Data for 2005</u> (see Technical Notes)

Introduction

The linked birth/infant death data set (linked file) is released in two formats - period data and birth cohort data. This documentation is for the 2005 period linked file. Beginning with 1995 data, the period linked files have formed the basis for all official NCHS linked file statistics. Differences between period and birth cohort data are outlined below.

Period data - The numerator for the 2005 period linked file consists of all infant deaths occurring in 2005 linked to their corresponding birth certificates, whether the birth occurred in 2004 or 2005. The denominator file for this data set is the 2005 natality file, that is, all births occurring in 2005. In addition, NCHS accepted a small number of late-filed birth certificates needed to link to infant deaths. This reduced the number of unlinked records and slightly increased the number of births in the denominator file. There are also some records from Vermont not reported in the natality file but included in the period linked file (see section on Update to 2005 Vermont Birth Data).

Birth cohort data - The numerator for the 2005 birth cohort linked file consists of deaths to infants born in 2005 whether the death occurred in 2005 or 2006. The denominator file is the 2005 natality file, that is, all births occurring in 2005.

The 2005 period linked birth/infant death data set includes several data files. The first file includes all US infant deaths which occurred in the 2005 data year linked to their corresponding birth certificates, whether the birth occurred in 2004 or in 2005 - 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 death file. The third file is the 2005 NCHS natality file for the US (plus late-filed records mentioned above), which is used to provide denominators for rate computations. These same three data files are also available for Puerto Rico, the Virgin Islands, and Guam.

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

This data file includes data based on both the 1989 Revision of the U.S. Standard Certificate of Live Birth (unrevised) and the 2003 revision of the U.S. Standard Certificate of Live Birth (revised). The 2003 revision is described in detail elsewhere. (See the 2003 Revision website at: http://www.cdc.gov/nchs/vital_certs_rev.htm). Twelve states, Florida, Idaho, Kansas, Kentucky, Nebraska, New Hampshire, New York (excluding New York City), Pennsylvania, South Carolina, Tennessee, Texas, and Washington and Puerto Rico, implemented the 2003 revision on or before January 1, 2005. Vermont implemented the revised birth certificate in 2005, but after January 1. Where comparable, revised data are denoted by "R;" unrevised data are denoted by "U" in the "Rev" column of the documentation.) Where data for the 1989 and 2003 certificate revisions are not comparable (e.g., educational attainment of the mother), unrevised and revised data are given in separate fields in the data file.

This file includes data for seventeen states (California, Connecticut, Florida, Idaho, Kansas, Michigan, Montana, Nebraska, New Hampshire, New Jersey, New York, Oklahoma, South Carolina, South Dakota, Utah, Washington, and Wyoming), which implemented the 2003 revision of the U.S. Standard Certificate of Death as of January 1, 2005 or in 2004. The District of Columbia implemented the revised death certificate in 2005, but after January 1. Data from all other areas are based on the 1989 revision. Most of the variables from the death certificate in this file are comparable despite changes to item wording and format in the 2003 revision. The 2003 revision is described in detail elsewhere. (See the 2003 Revision website at:

http://www.cdc.gov/nchs/vital_certs_rev.htm).

Incomplete National Reporting - Using Reporting Flags

As a result of the delayed, phased transition to the 2003 U.S. Standard Certificate of Live Birth, the 2005 linked file includes data for reporting areas that use the 2003 revision of the U.S. Standard Certificate of Live Birth (revised) and data for reporting areas that use the 1989 Standard Certificate of Live Birth (unrevised). Although many data items are comparable across certificate revisions and are available for the entire United States, many items have more limited reporting areas. In addition, the 2005 linked file contains information on infants born in both 2004 and 2005 (see description of the period linked file above). As reporting areas changed between 2004 and 2005, this complicates the file. 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 for the entirety of 2004 and 2005. Reporting flags are included in the file to assist in accurately excluding records from non-reporting areas when tabulating data by mother's place of residence. Reporting flags are available for most items on the file.

Reporting areas for the 2005 linked file are different from those for the 2005 birth file, as items had to be reported by a state in both 2004 and 2005 to be able to provide complete data. Thus, data for non-comparable items from states that revised in 2005 are excluded from all tabulations. Positions for reporting flags are noted along with each data item in the file layout. Reporting flags <u>must be invoked</u> to generate accurate numbers by residence for items which are not reported by all states. Where applicable, reporting flags are shown in the column "Reporting Flag Position" in the file layout. Reporting flag codes are "0" (item 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 2005 linked file, for data items which are not common or comparable across certificate revisions, events to residents of a revised state occurring in an unrevised state, and events to residents in an unrevised state occurring in a revised state, are represented by "blanks." Blanks should be treated as "unknowns" for tabulations.

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

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

An example of SAS code that may be used to incorporate the correct use of reporting flags and the translation of blanks is shown below. This example is for the revised prenatal care item. Prenatal care data based on the revised certificate are not considered comparable to data based on the unrevised certificate, and are shown separately. Accordingly, use of the reporting flag for this item will produce 2005 data for the month prenatal care began for the seven revised states which had implemented the revised certificates in 2005 are excluded, as part of their linked file births (those born in 2004) were reported on the unrevised certificate.

Sample SAS program

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

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

Alternatives to the use of reporting flags - The use of reporting flags provides a relatively quick, accurate way to select records for all areas reporting comparable data for a given item in a particular year. However, should a limited reporting area be needed, specific state(s) of residence may also be selected, or unselected. This approach may be useful,

for example, in trend analysis where reporting areas have changed over time. See Table A in the "Natality Technical Appendix" for state-specific information on reporting areas. This approach may also be used to limit the reporting area to only states reporting multiple or single race data (see multiple race section below).

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

01	DATA work;
02	INFILE 'c:USnum.dat' LRECL=1259;
03	INPUT
04	restatus 138
05	xmrstate \$ 107-108
06	precare 245-246;
07	
08	/*Exclude foreign residents*/
09	IF restatus NE 4;
10	/*Select reporting area*/
11	IF xmrstate in ('ID','KY','NY','PA','SC','TN','WA');
12	/*Convert blanks to unknown*/
13	IF precare=. THEN precare=99;
14	
15	PROC FREQ;
16	TABLE precare;
17	RUN;

Single, Multiple, and Bridged Race

In 1997, the Office of Management and Budget (OMB) issued revised standards requiring Federal collection programs to allow respondents to select *one or more race categories*. In 2005 data, nineteen areas reported multiple race data for all or part of the year: California, Florida, Hawaii, Idaho, Kansas, Kentucky, Minnesota, Nebraska, New Hampshire, New York State (excluding New York City), Ohio, Pennsylvania, South Carolina, Tennessee, Texas, Utah, and Washington (full year); and Vermont (partial year) and Michigan for births at selected facilities only. For the 2005 period linked file, complete data for both 2004 and 2005 births is available from 7 states: Idaho, Kentucky, New York State (excluding New York City), Pennsylvania, South Carolina, Tennessee, and Washington.

In 2005, multiple race data was reported for the entire year on the death certificates of 21 states: California, Connecticut, Florida, Hawaii, Idaho, Kansas, Maine, Michigan, Minnesota, Montana, Nebraska, New Hampshire, New Jersey, New York, Oklahoma, South Carolina, South Dakota, Utah, Washington, Wisconsin, and Wyoming. 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 2005" and "Deaths: Final Data for 2005".

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:

number of linked infant deaths + number of unlinked infant deaths 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 3.74 to 0.45 in the numerator file, and from 0.09 to 0.01 in the denominator file, thus greatly reducing the potential for underestimation when computing birthweight-specific infant mortality rates.

Comparisons of infant mortality data from the linked file with infant mortality data from the vital statistics mortality file

Although the time periods are the same, numbers of infant deaths and infant mortality rates by characteristics are not always identical between the period linked file and the vital statistics mortality file. Differences in numbers of infant deaths between the two data sources are primarily due to geographic coverage differences. For the vital statistics mortality file, all deaths occurring in the 50 states and the District of Columbia are included regardless of the place of birth of the infant. In contrast, to be included in the linked file, both the birth and death must occur in the 50 states and the District of Columbia. Also, although every effort has been made to design weights that will accurately reflect the distribution of deaths by characteristics, weighting may contribute to small differences in numbers and rates by specific variables between these two data sets. In most cases, differences between numbers of infant deaths and infant mortality rates between the linked file and those computed from the vital statistics mortality file are negligible.

Update to 2005 Vermont Birth Data

State specific data for Vermont in the 2005 natality file are based on an incomplete file of Vermont birth records; the total number of Vermont resident births is under-reported by about 3 percent. The 2005 linked files, which was created after the natality files, includes the complete count of Vermont births.

Methodology

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

1. State linked files for the identification of linked birth and infant death certificates; and

2. NCHS natality and mortality computerized statistical files, the source of computer records for the two linked certificates.

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

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

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

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

Characteristics of Unlinked File

For the 2005 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 2005" included in this documentation). Also, date of birth as reported on the death certificate is used to generate age at death. This information is used in place of date of birth from the birth certificate, which is not available. Documentation table 6 shows counts of unlinked records by race and age at death for each state of residence. The user is cautioned in using table 6 that the race and residence items are based on information reported on the death certificate, whereas tables 1-5 present data from the linked file in which the race and residence items are based on information reported on the birth certificate.

Percent of Records Linked

The 2005 linked file for the 50 States and D.C. includes 28,101 linked infant death records and 363 unlinked infant death records. The linked file is weighted to the sum of linked plus unlinked records, thus the total number of weighted infant deaths by place of occurrence is 28,464. While the overall percent linked for infant deaths in the 2004 file is 98.7%, there are differences in percent linked by certain variables. These differences have important implications for how the data is analyzed.

Table 1 below shows the percent of infant deaths linked by state of occurrence of death. While many states link all of their infant deaths, linkage rates for some states are below the national average. Note in particular the percent linked for California (96.4), Illinois (98.3), Louisiana (94.0), Nevada (96.7), Ohio (97.4), Oregon (98.6) and Texas (96.1). When a high percentage of deaths remain unlinked, unweighted infant mortality rates computed for these states are underestimated. It is for this reason that weights were added to the file to correct for biases in the data due to poor data linkage for particular states.

Table 1. Percent of infant deaths linked by state of occurrence of death: United States, 2005 linked file

United States	98.7	Nebraska	100.0
Alabama	100.0	Nevada	96.7
Alaska	100.0	New Hampshire	100.0
Arizona	97.9	New Jersey	99.2
Arkansas	100.0	New Mexico	99.4
California	96.4	New York State	98.9
Colorado	99.8	New York City	99.7
Connecticut	100.0	North Carolina	99.8
Delaware	100.0	North Dakota	100.0
District of Columbia	100.0	Ohio	97.4
Florida	99.8	Oklahoma	99.5
Georgia	99.8	Oregon	98.6
Hawaii	100.0	Pennsylvania	99.5
Idaho	100.0	Rhode Island	100.0
Illinois	98.3	South Carolina	99.8
Indiana	99.7	South Dakota	100.0
Iowa	100.0	Tennessee	100.0
Kansas	100.0	Texas	96.1
Kentucky	99.4	Utah	100.0
Louisiana	94.0	Vermont	100.0
Maine	100.0	Virginia	100.0
Maryland	100.0	Washington	99.8
Massachusetts	99.8	West Virginia	100.0
Michigan	100.0	Wisconsin	100.0
Minnesota	99.7	Wyoming	100.0
Mississippi	100.0	Puerto Rico	99.8
Missouri	99.7	Virgin Islands	100.0
Montana	100.0	Guam	100.0

In general, a slightly higher percentage of postneonatal (28 days to under 1 year) than neonatal (less than 28 days) deaths were linked (99.1 and 98.5, respectively.) While the weighting protocol has been designed to correct for possible bias due to variations in match rates by characteristics, no statistical method can correct perfectly for data limitations. Therefore, slight variations in the percent of records linked should be taken into consideration when comparing infant mortality rates by detailed characteristics.

Confidentiality

To minimize the risk of disclosure of individual or institutional information NCHS public-use data files do not contain the actual day of the birth or the dates of birth of the mother or father. Also, for public-use files, no geographic detail is identified.

Demographic and Medical Classification

The documents listed below describe in detail the procedures employed for demographic classification on both the birth and death records and medical classification on death records. These documents, while not absolutely essential to the proper interpretation of the data for a number of general applications, should nevertheless be studied carefully prior to any detailed analysis of demographic or medical data variables. In particular, there are a number of exceptions to the ICD rules in multiple cause-of-death coding which, if not treated properly, may result in faulty analysis of the data. Volumes 1, 2 and 3 of the ICD-10 may be purchased from the World Health Organization (WHO) Publication Center USA, 49 Sheridan Avenue, Albany, New York, 12210

(http://www.who.int/whosis/icd10/index.html). Many of the instruction manuals listed below are available electronically on the NCHS website at:

http://www.cdc.gov/nchs/about/major/dvs/im.htm. In addition, users who do not already have access to these documents may request them from the Chief, Mortality Medical Classification Branch, Division of Vital Statistics, National Center for Health Statistics, P.O. Box 12214, Research Triangle Park, North Carolina 27709. The technical appendix for natality and the mortality final report for 2004 included in this document also provide information on the source of data, coding procedures, quality of the data, etc.

- A. National Center for Health Statistics. Vital statistics, Instructions for Classifying the Underlying Cause-of-Death, 2008. 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, 2008. 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, 2008. 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 2007. NCHS Instruction Manual Part 11. Hyattsville, Maryland: Public Health Service.

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

Underlying Cause of Death Data

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

If the death certificate is properly completed, the disease or condition listed on the lowest used line in Part I is usually accepted as the underlying cause of death. This is an application of "The General Principle." The General Principle is applied unless it is highly improbable that the condition on the lowest line used could have given rise to all of the diseases or conditions listed above it. In some cases, the sequence of morbid events entered on the death certificate is not specified correctly. A variety of errors may occur in completing the medical certification of death. Common problems include the following: The causal chain may be listed in reverse order; the distinction between Part I and Part II may have been ignored so that the causal sequence in Part I is simply extended unbroken into Part II; or the reported underlying cause is unlikely, in an etiological sense, to have caused the condition listed above it. In addition, sometimes the certifier attributes the death to uninformative causes such as cardiac arrest or pulmonary arrest.

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

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

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

In addition to changes due to the implementation of a new ICD revision, rules for coding a cause of death may occasionally require modification at other times, when evidence suggests that such modifications will improve the quality of cause-of-death data. These changes may affect comparability of data between years for select causes of death. For example, the increase in Necrotizing enterocolitis of newborn (ICD-10 code P77) among infants for 2005 is largely due to a coding rule change (specifically, ICD-10 code P60 can be due to ICD-10 codes P77-P78). The result of the rule change is that Necrotizing enterocolitis of newborn is selected as the underlying cause more often than was previously the case.

Multiple Cause of Death Data

The limitations of the underlying cause concept and the need for more comprehensive data suggested the need for coding and tabulating all conditions listed on the death certificate. Coding all listed conditions on the death certificate was designed with two

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

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

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

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

Entity Axis Codes

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

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

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

3. Cause category: The next four bytes represent the ICD-10 cause code.

4. The last byte is blank.

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

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

<u>2. Edit</u>. 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.

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

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

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

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

Record Axis Codes

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

<u>1. Format</u>. 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.

<u>2. Edit</u>. 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.

<u>3. Record Axis Applications</u>. 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.

Numerator Files:

<u>United States</u> A. Record count: B. Record length: C. Data counts:	28,101 1,259 a. By occurrence: 28,101 b. By residence: 28,021 c. To foreign residents: 80
<u>Territories</u> A. Record count:	513
B. Record length:	1,259
Denominator Files:	
<u>United States</u> A. Record count: B. Record length: C. Data counts:	4,145,883 868 a. By occurrence: 4,145,883 b. By residence: 4,138,573 c. To foreign residents: 7,310
<u>Territories</u>	C
A. Record count:B. Record length:	55,578 868
Unlinked Files:	
<u>United States</u> A. Record count: B. Record length: C. Data counts:	365 1,259 a. By occurrence: 365 b. By residence: 361 c. To foreign residents: 4
Territories	-
A. Record count:B. Record length:	1 1,259

Linked 2005 Data Elements and Locations

Data Items	Denominator File	<u>Numerator F</u> Birth	<u>ile</u> Death	Unlinked File
General				
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	893		
Flag indicating				
records included				
in both numerator				
and denominator	868	868		
Infant				
Age at death			872-77	872-77
Race				139-44*
Sex	436	436		436*
Gestation	451-57	451-57		
Birthweight	463-66	463-66		
Plurality	423	423		
Apgar score	415-17	415-17		
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				
	182-87	182-87		
Age Race	188-91,	188-91,		
Race	199-200	199-200		
Hispanic origin	195-96	195-96		
Pregnancy items	0.45.47	045 45		
Month pre-care began	245-47,	245-47,		
	256-59	256-59		

Number prenatal visits Total birth order	270-73 215-17	270-73 215-17		
Live birth order	210-12	210-12		
Born alive, now living	204-5	204-5		
Born alive, now dead	206-7	206-7		
Other terminations	208-9	208-9		
Month of last live birth	220-21	220-21		
Year of last live birth	222-25	222-25		
Medical and health data				
Method of delivery	390-403	390-403		
Medical risk factors	313-19,	313-19,		
	328-44	328-44		
Tobacco	284-94	284-94		
Alcohol	295-98	295-98		
Weight gain during preg	276-78	276-78		
Obstetric procedures Complications /	351-61	351-61		
Characteristics of L/D	365-89	365-89		
Abnormal conditions	476-91	476-91		
Congenital anomalies	492-525	492-525		
Underlying cause, death			884-87	884-87
130 infant cause recode			889-91	889-91
Multiple conditions			903-1148	903-1148
Other items				
Residence reporting				
Flags	569-773	569-773		
Late record flag	9	9		
Place of birth	42,59	42,59		
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
1-6	6	FILLER	Filler				
7	1	REVISION	Revision		U,R	R U	State used the 2003 version of the US Standard Birth Certificate (Revised) State used the 1989 version of the US Standard Birth Certificate (Unrevised)
8	1	FILLER	Filler				
9	1	LATEREC	Late Record Flag		U,R	0 1 2	Not late record Late record Late Vermont record
10-14	5	FILLER	Filler				
15-18	4	DOB_YY	Birth Year		U,R	2004 2005	2004 2005
19-20	2	DOB_MM	Birth Month		U,R	01 02 03 04 05 06 07 08 09 10 11 12	January February March April May June July August September October November December
21-28	8	FILLER	Filler				
29	1	DOB_WK	Weekday		U,R	1 2 3 4 5 6 7	Sunday Monday Tuesday Wednesday Thursday Friday Saturday

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

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
30-31	2	OSTATE	Occurrence Territory (This item is available in th only, geographic codes are available in the U.S.file)		U,R		
			Outlying Areas o	<u>f 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 th only, geographic codes are available in the U.S.file)		U,R		
			Puerto Rico			127 999	San Juan County less than 250,000
			Other Outlying A	areas of the U.S.		000 999	No county level geography County less than 250,000
40	1	OCNTYPOP	Occurrence County Pop (This item is available in th only, geographic codes are 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	Hospital Freestanding Birthing Center Clinic / Doctor's Office Residence d the 2002 Bayisian of the U.S. Cortif

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

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
						5 9	Other Unknown
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 F	ag	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	10 – 12 years 13 years 14 years 15 years 15 years 16 years 17 years 18 years 20 years 21 years 22 years 23 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

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

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
						36 37 38 39 40 41 42 43 44 45 46 47 48	36 years 37 years 38 years 39 years 40 years 41 years 42 years 43 years 44 years 45 years 46 years 47 years 48 years
91-92	2	MAGER14	Mother's Age Recode 14		U,R	49 50 01 03 04 05 06 07 08 09 10	49 years 50 -54 years Under 15 Years 15 years 16 years 17 years 18 years 19 years 20-24 years 25-29 years 30-34 years
93	1	MAGER9	Mother's Age Recode 9		U,R	11 12 13 14 1 2 3 4 5 6 7 8 9	35-39 years 40-44 years 45-49 years 50-54 years Under 15 years 15-19 years 20-24 years 25-29 years 30-34 years 35-39 years 40-44 years 45-49 years 50-54 years

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

Positior	1	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition	
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	e new geographic co	ding.			
96-108		13	FILLER	Filler					
109-110		2	MRTERR	Mother's Residence (This item is available in the only, geographic codes are available in the U.S.file)		U,R	CU	Cuam	
							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 reside (This item is available in the only, geographic codes are available in the U.S.file) <u>Puerto Rico</u>	e territory file		127 999	San Juan County of less than 250,000 or foreign resident	
				Other Outlying A	reas of the US		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 C (This item is available in the		U,R			
	* 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). Includes data based on both the 1989 Revision of the U.S. Certificate of Live Birth; excludes data based on the 2003 Revision. 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
			only, geographic codes are available in the U.S.file)	e not		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 th only, geographic codes are available in the U.S.file)		U,R	1 2	RESIDENT: State and county of occurrence and residence are the same. NONRESIDENT: State and county of occurrence and residence are different.
138	1	RESTATUS	Residence Status <u>United States</u>		U,R	1 2 3 4	RESIDENT: State and county of occurrence and residence are the same. INTRASTATE NONRESIDENT: State of occurrence and residence are the same but county is different. INTERSTATE NONRESIDENT: State of occurrence and residence are different but both are one of the 50 US states or District of Columbia. FOREIGN RESIDENT: The state of residence is not one of the 50 US states or District of Columbia.
			<u>Outlying areas of</u>	<u>f the US</u>		1 2 2 3	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.) INTRATERRITORY NONRESIDENT: Territory of occurrence and residence are the same but county is different. INTERTERRITORY RESIDENT: Territory of occurrence and residence are different but both are US Territories. FOREIGN RESIDENT: The residence is not a US Territory.
139-140	2	MBRACE	Mother's Bridged Race Includes only states reporti 01-14 used for individuals Codes 21-24 used for indiv one race that have been bri	reporting only one ra viduals reporting mor	ace. e than	01 02 03 04 05	White – single race Black – single race American Indian/Alaska Native – single race Asian Indian – single race Chinese – single race
* U,R	Include	es data based on bot	h the 1989 Revision of the U.S	S. Certificate of Live	Birth (unr	revised), an	nd the 2003 Revision of the U.S. Certificate of Live Birth

U Includes data based on both the 1989 Revision of the U.S. Certificate of Live Birth; excludes data based on the 2003 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	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
			** Also includes unrevi multiple race.	sed states that report		23 24 Blank	American Indian / Alaska Native – bridged multiple race Asian / Pacific Islander – bridged multiple race Not on certificate
141-142	2	MRACE	Mother's Race Includes only states exc race. Some areas report Pacific Islander (API) co 18-68 replace former co Code 78 replaces forme areas. See reporting flag API reporting area.	additional Asian or odes for race. Codes de 08 for these areas. r code 08 for all other	U		
			<u>United States</u>			01 02 03 04 05 06 07 18 28 38 48 58 68 78	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.

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

Positio	n	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
							Blank	Not on certificate
				Puerto Rico			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
				<u>All other Outlying</u>	g Areas of the US		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 reportini individuals reporting more to to a single race.				
					all Outlying Areas of except Puerto Rico	<u>of</u>	1 2 3 4	White Black American Indian / Alaskan Native Asian / Pacific Islander
	* U.R		1,1 1 1 1	Puerto Rico		D' 41 4	1 2	White Black d the 2003 Revision of the U.S. Certificate of Live

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

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
						0	Other (not classified as White or Black)
144	1	MRACEIMP	Mother's Race Imputed F	lag	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	Non-Hispanic Mexican Puerto Rican Cuban Central American Other and Unknown Hispanic
149	1	MRACEHISP	Mother's Race/Hispanic (Drigin 569	U,R	9 1 2 3 4 5 6 7 8	Origin unknown or not stated Mexican Puerto Rican Cuban Central or South American Other and Unknown Hispanic Non-Hispanic White Non-Hispanic Black Non-Hispanic Other Races
150-152	3	FILLER	Filler			9	Origin unknown or not stated
153	1	MAR	Mother's Marital Status <u>United States and</u> the US except Pu	l all Outlying Areas o erto Rico	U,R o <u>f</u>	1 2 9	Yes No Unknown or not Stated
			<u>Puerto Rico</u>			1 2 3 9	Yes Unmarried parents living together Unmarried parents not living together Unknown or not stated

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

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition			
154	1	MAR_IMP	Mother's Marital Status I	Imputed Flag	U,R	Blank 1	Marital Status not imputed Marital Status imputed			
155	1	MEDUC	Mother's Educ –Revised	571	R	1 2 3 4 5 6 7 8 9 Blank	8 th grade or less 9 th through 12 th grade with no diploma High school graduate or GED completed Some college credit, but not a degree. Associate degree (AA,AS) Bachelor's degree (BA, AB, BS) Master's degree (MA, MS, MEng, MEd, MSW, MBA) Doctorate (PhD, EdD) or Professional Degree (MD, DDS, DVM, LLB, JD) Unknown Not on certificate			
156-157	2	UMEDUC	Mother's Educ –Unrevise	d 647	U	00 01-08 09 10 11 12 13 14 15 16 17 99 Blank	No formal education Years of elementary school 1 year of high school 2 years of high school 3 years of high school 4 years of high school 1 year of college 2 years of college 3 years of college 4 years of college 5 or more years of college Not stated Not on certificate			
158	1	MEDUC_REC	Mother's Education Reco	de 647	U	1 2 3 4 5 6 Blank	0 – 8 years 9 – 11 years 12 years 13 – 15 years 16 years and over Not stated Not on certificate			
159-174	16	FILLER	Filler							
175	1	FAGERPT_FLG	Father's Reported Age Us	sed	U,R	Blank 1	Father's reported age not used Father's reported age used			
* U,R U R	(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.									

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
176-181	6	FILLER	Filler				
182-183	2	FAGECOMB	Father's Combined Age	(Revised)	R	09-98 99 Blank	Father's combined age in years Unknown or not stated Not on certificate
184-185	2	UFAGECOMB	Father's Combined Age	(Unrevised)	U	10-98 99	Father's combined age in years Unknown or not stated
186-187	2	FAGEREC11	Father's Age Recode 11		U,R	01 02 03 04 05 06 07 08 09 10 11	Under 15 years 15-19 years 20-24 years 25-29 years 30-34 years 35-39 years 40-44 years 45-49 years 50-54 years 55-98 years Not stated
188-189	2	FBRACE	Father's Bridged Race Includes only states report 01-14 used for individuals Codes 21-24 used for indiv one race that have been bri Code 24 also used for indi more than one Asian/Pacifi see "Technical Appendix."	reporting only one ra viduals reporting mo idged to a single race viduals reporting ic Islander group;	ace. re than 	$\begin{array}{c} 01\\ 02\\ 03\\ 04\\ 05\\ 06\\ 07\\ 08\\ 09\\ 10\\ 11\\ 12\\ 13\\ 14\\ 21\\ 22\\ 23\\ 24\\ 99 \end{array}$	White – single race Black – single race American Indian/Alaska Native – single race Asian Indian – single race Chinese – single race Filipino – single race Japanese – single race Japanese – single race Vietnamese – single race Other Asian – single race Hawaiian – single race Guamanian – single race Guamanian – 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

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

Position		Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
				** Also includes unrevised multiple race.	states that report		Blank	multiple race. Not on certificate
190		1	FILLER	Filler				
191		1	FRACEREC	Father's Race Recode Includes individuals reporti individuals reporting more to a single race.		U,R		
				United States and the US except Pur	all Outlying Areas o erto Rico	<u>f</u>	1 2 3 4 9	White Black American Indian / Alaskan Native Asian / Pacific Islander Unknown or not stated
				Puerto Rico			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-	Unrevised 570	U,R	0 1 2 3 4 5 9	Non-Hispanic Mexican Puerto Rican Cuban Central American Other and Unknown Hispanic Origin unknown or not stated
196		1	FRACEHISP	Father's Race/Hisp Origin	n 570	U,R	1 2 3 4 5 6 7 8	Mexican Puerto Rican Cuban Central or South American Other and Unknown Hispanic Non-Hispanic White Non-Hispanic Black Non-Hispanic Other Races
	* U,R	Include	s data based on botl	n the 1989 Revision of the U.S	. Certificate of Live B	Birth (unr	evised), an	d the 2003 Revision of the U.S. Certificate of

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

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
						9	Origin unknown or not stated
197-198	2	FILLER	Filler				
199-200	2	UFRACE	Father's Race (Unrevised) <u>United States</u>)	U	01	White
						02 03	Black American Indian / Alaska Native
						03 04	Chinese
						05	Japanese
						06	Hawaiian (includes part Hawaiian)
						07	Filipino
						18	Asian Indian
						28 38	Korean Samoan
						38 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
						0.0	separately.
						99 Blank	Unknown or not stated Not on certificate
						DIAIIK	Not on certificate
			Puerto Rico			01	White
						03	Black
						00	Other races not classified white or black
						99 Dl 1	Unknown or not stated
						Blank	Not on certificate
			Guam			01	White
						02	Black
						03	American Indian / Alaska Native
						04	Chinese
						05 06	Japanese Hawaiian (includes part Hawaiian)
						08 07	Filipino
						07	Other Asian or Pacific Islander
						58	Guamanian
						99	Unknown or not stated

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

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
						Blank	Not on certificate
			<u>All other Outlyin</u>	ng Areas of the US		01 02 03 04 05 06 07 08 99 Blank	White Black American Indian / Alaska Native Chinese Japanese Hawaiian (includes part Hawaiian) Filipino Other Asian or Pacific Islander Unknown or not stated Not on certificate
201-203	3	FILLER	Filler				
204-205	2	PRIORLIVE	Prior Births Now Living		U,R	00-30 99	Number of children still living Unknown or not stated
206-207	2	PRIORDEAD	Prior Births Now Dead		U,R	00-30 99	Number of children dead Unknown or not stated
208-209	2	PRIORTERM	Prior Other Termination	s	U,R	00-30 99	Number other terminations Unknown or not stated
210-211	2	LBO	Live Birth Order		U,R	01-31 99	Sum of all previous live births (now living and now dead) plus current birth Unknown or not stated
212	1	LBO_REC	Live Birth Order Recode		U,R	1-7 8 9	Number of live birth order. 8 or more live births Unknown or not stated
213-214	2	FILLER	Filler				
215-216	2	ТВО	Total Birth Order		U,R	01-40 99	Sum of all previous pregnancies plus current birth Unknown or not stated
217	1	TBO_REC	Total Birth Order Recode	e	U,R	1-7 8	Number of total birth order. Total birth order of 8 or more
* U,R	Include		the 1989 Revision of the U.S	5. Certificate of Live	Birth (uni	revised), an	d 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.

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
						9	Unknown or not stated
218-219	2	FILLER	Filler				
220-221	2	DLLB_MM	Date of Last Live Birth M	onth	R	01 02 03 04 05 06 07 08 09 10 11 12 88 99	January February March April May June July August September October November December Not applicable Unknown or not stated
222-225	4	DLLB_YY	Date of Last Live Birth Ye	ear	R	nnnn 8888 9999	Year of last live birth Not applicable Unknown or not stated
226-244	19	FILLER	Filler				
245-246 247	2	PRECARE	Month Prenatal Care Beg Month Prenatal Care Beg	668	R	00 01-10 99 Blank	No prenatal care Month prenatal care began Unknown or not stated Not on certificate
247 248-255	8	FILLER	Filler	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
270-233	0	TILLEN	rmer				

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

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
256-257	2	МРСВ	Month Prenatal Care Beg	an (Unrevised) 669	U	00 01-10 99 Blank	No prenatal care Month prenatal care began Unknown or not stated Not on ceritificate
258	1	MPCB_REC6	Month Prenatal Care Beg	an Recode 6 (Unrev 669	vised) 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 Beg	an Recode 5 (Unrev 669	vised) 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

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

Position		Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
274		1	FILLER	Filler				
275		1	APNCU	Adequacy of Prenatal Car	e Utilization Index	(Revised))	
				1	668	R	1	Inadequate
							2	Intermediate
							3	Adequate
							4	Adequate +
							9	Unknown
							Blank	Not on certificate
276-277		2	WTGAIN	Weight Gain	648	U,R	00-97	Weight gain in pounds
210 211		2	W I G/ III V	Weight Guin	040	0,10	98	98 pounds and over
							99	Unknown or not stated
278		1	WTGAIN_REC	Weight Gain Recode	648	U,R	1	Less than 16 pounds
270		1		Weight Sum Recoue	010	0,10	2	16 to 20 pounds
							3	21 to 25 pounds
							4	26 to 30 pounds
							5	31 to 35 pounds
							6	36 to 40 pounds
							7	41 to 45 pounds
							8	46 or more pounds
							9	Unknown or not stated
279		1	U_APNCU	Adequacy of Prenatal Car	e Utilization Index	(Unrevise	(he	
219		1	0_111100	fucquicy of Frenuur Cur	669	U	1	Inadequate
						-	2	Intermediate
							3	Adequate
							4	Adequate +
							9	Unknown
							Blank	Not on certificate
280		1	DFPC_IMP	Day of Date First Prenatal	Care Imputed	R	Blank 1	Day of date first prenatal care not imputed Day of date first prenatal care imputed
281-283		3	FILLER	Filler				
284-285		2	CIG_1	Cigarettes 1 st Trimester	575	R	00-97	Number of cigarettes daily
204-203		2		Sigarcues 1 Timester	515	ĸ	00-97 98	98 or more cigarettes daily
							99	Unknown or not stated
							Blank	Not on certificate
	* U,R	Include	s data based on both	the 1989 Revision of the U.S.	Certificate of Live	Birth (unre	evised), an	d the 2003 Revision of the U.S. Certificate of

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

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
286-287	2	CIG_2	Cigarettes 2 nd 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 3 rd 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	1	ALCOHOL	Alcohol Use	649	U	1 2 9 Blank	Yes No Unknown or not stated Not on certificate
296-297	2	DRINKS	Drinks per Week	649	U	00-97	Number of drinks weekly
* U,R	Include	es data based on both	the 1989 Revision of the U.S	. Certificate of Live	Birth (unr	evised), an	d the 2003 Revision of the U.S. Ce

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

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
						98 99 Blank	98 or more drinks weekly Unknown or not stated Not on certificate
298	1	DRINKS_REC	Drinks Recode	649	U	0 1 2 3 4 5 Blank	Non drinker 1 drink per week 2 drinks per week 3-4 drinks per week 5 or more drinks per week Unknown or not stated Not on certificate
299-312	14	FILLER	Filler				
313-319	9	Risk Factors (R The checkbox ite	evised) ms below follow this code strue	cture:		Y N U Blank	Yes No Unknown or not stated Not on certificate
313 314 315 316 317 318 319	1 1 1 1 1 1	RF_DIAB RF_GEST RF_PHYP RF_GHYP RF_ECLAM RF_PPTERM RF_PPOUTC	Prepregnancy Diabetes Gestational Diabetes Prepregnancy Hypertesion Gestational Hypertension Eclampsia Previous Preterm Birth Poor Pregnancy Outcome	585 586 587	R R R R R R		
320-323	4	FILLER	Filler				
324	1	RF_CESAR	Previous Cesarean Deliver	ies 593	R	Y N U Blank	Yes No Unknown or not stated Not on certificate
325-326	2	RF_CESARN	Number of Previous Cesar	ean Deliveries 594	R	00 01-30 99 Blank	None Number of previous cesareans Unknown or not stated Not on certificate
327	1	FILLER	Filler				
* U,R U	(revise	ed).	h the 1989 Revision of the U.S. h the 1989 Revision of the U.S.				d the 2003 Revision of the U.S. Certificate of Live Birth based on the 2003 Revision.

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.

19

Position	l	Len	Field	Description	Reporting Flag Posi		Rev*	Values	Definition
328-344		17		ns indented below follow this s 1989 Standard unless otherwis			U	1 2 9	Yes No Unknown
	328 329 330 331 332 333 334 335 336 337 338 339 340 341 342	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	URF_ANEMIA URF_CARDC URF_LUNG URF_DIAB URF_GEN URF_HYDR URF_HEMO URF_CHYPER URF_PHYPER URF_ECLAM URF_INCERV URF_PRE4000 URF_PRETERM URF_RENAL URF_RH	Anemia Cardiac Acute or Chronic Lung Dis Diabetes Genital Herpes Hydramnios / Oligohydram Hemoglobinopathy Chronic Hypertension Prepregnancy Associated H Eclampsia Incompetent Cervix Previous Infant 4000+ Gra Previous Preterm/Small for Renal Disease Rh Sensitization	sease (nnios (Hypertensio ums (r Gestation	690 691 692 693 694 695	U,R U,R U,R U,R	Blank	Not on certificate
245 250	343 344	1	URF_UTERINE URF_OTHER	Uterine Bleeding Other medical risk factors		696 697			
345-350 351-354		6 4	FILLER <u>Obstetric Procedu</u> The checkbox iten	Filler ures (Revised) as indented below follow this s	structure:			Y N U	Yes No Unknown or not stated
	351 352 353 354	1 1 1 1	OP_CERV OP_TOCOL OP_ECVS OP_ECVF	Cervical Cerclage Tocolysis Successful External Cepha Failed External Cephalic V		601 602 603 604	R R R R	Blank	Not on certificate
355-361		7		ures (Unrevised) ns indented below follow this s 1989 Standard unless otherwis				1 2 9 Blank	Yes No Unknown or not stated Not on certificate
	* U,R	(revised	l).	the 1989 Revision of the U.S.					d the 2003 Revision of the U.S. Certificate of Live Birth

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

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition

	355 356 357 358 359 360 361	1 1 1 1 1 1 1	UOP_AMNIO UOP_MONIT UOP_INDUC UOP_STIML UOP_TOCOL UOP_ULTRA UOP_OTHER	Amniocentesis Electronic Fetal Monitorin Induction of Labor Stimulation of Labor Tocolysis Ultrasound Other Obstetric Procedury	703 704 705 706		U,R U,R		
362-364		3	Onset of Labor The checkbox iter	ms below follow this structure:	:			Y N U Blank	Yes No Unknown or not stated Not on certificate
-	362	1	ON_RUPTR	Premature Rupture of Me	mbrane	605	R		
	363	1	ON_PRECIP	Precipitous Labor		606	R		
	364	1	ON_PROL	Prolonged Labor		607	R		
	365 366 367 368 369 370 371 372 373	9 1 1 1 1 1 1 1 1 1 1	Characteristics of The checkbox iter LD_INDL LD_AUGM LD_NVPR LD_STER LD_ANTI LD_CHOR LD_MECS LD_FINT LD_ANES	of Labor and Delivery (Revis ms below follow this structure: Induction of Labor Augmentation of Labor Non-Vertex Presentation Steriods Antibiotics Chorioamnionitis Meconium Staining Fetal Intolerance Anesthesia	ed) 608 609 610 611 612 613 614 615 616		R R R R R R R R R	Y N U Blank	Yes No Unknown or not stated Not on certificate
374-389	374	16	The checkbox iter	f Labor and Delivery (Unrev ms indented below follow this 1989 Standard unless otherwis Febrile	structure	: 711		1 2 9 Blank	Yes No Unknown or not stated Not on certificate
	374 375	1	ULD_FEBR ULD_MECO	Meconium		711	U,R		
	515								
;	* U.R	Include	s data based on both	the 1989 Revision of the U.S.	Certifica	ate of Live	Birth (un	revised), ar	nd the 2003 Revision of the U

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

Position		Len	Field	Description	Reportin Flag Po		Rev*	Values	Definition
	376 377 378 379 380 381 382 383 384 385 386 387 388 389	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ULD_RUPTR ULD_ABRUP ULD_PREPLA ULD_EXCBL ULD_SEIZ ULD_PROLG ULD_DYSFN ULD_BREECH ULD_CORD ULD_CORD ULD_ANEST ULD_DISTR ULD_OTHER	Premature Rupture of Mer Abruptio Placenta Placenta Previa Other Excessive Bleeding Seizures During Labor Precipitous Labor Prolonged Labor Dysfunctional Labor Breech Cephalopelvic Disproportio Cord Prolapse Anesthetic Comlications Fetal Distress Other Complications		713 714 715 716 717 718 719 720 721 722 723 724 725 726	U,R U,R		
390-394		5	Method of Delive	ery (Revised)					
	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 Deliver	∙ y 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	Yes
	* U,R	Include (revised		the 1989 Revision of the U.S.	Certificate	e of Live	Birth (unro	evised), an	d 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.

Position	n	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
							N X U Blank	No Not applicable Unknown Not on certificate
395-400)	6	Method of Delive The checkbox iten	ry (Unrevised) ns indented below follow this	structure:		1 2	Yes No
	395 396 397 398 399 400	1 1 1 1 1 1	UME_VAG UME_VBAC UME_PRIMC UME_REPEC UME_FORCP UME_VAC	Vaginal Vaginal after C-Section Primary C-Section Repeat C-Section Forceps Vacuum	730 731 732 733 734 735	U U U U,R U,R	9	Unknown or not stated
401		1	RDMETH_REC	Delivery Method Recode (Revised)	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)	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	Doctor of Medicine (MD)
	* U,R U R	(revised) Include	l). s data based on both	the 1989 Revision of the U.S. the 1989 Revision of the U.S. the 2003 Revision of the U.S.	. Certificate of Live	Birth; excl	ludes data	

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
						2 3 4 5 9	Doctor of Osteopathy (DO) Certified Nurse Midwife (CNM) Other Midwife Other Unknown or not stated
411-414	4	FILLER	Filler				
415	2	APGAR5	Five Minute APGAR Sco	re 574	U,R	00-10 99	A score of 0-10 Unknown or not stated
417	1	APGAR5R	Five Minute APGAR Rec	ode 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 Mor	nth	U,R	01 02	January February
+ I I D			1 1000 D 11 01 H		D' 1 (• •	

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

Position	1	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
							03 04 05 06 07 08 09 10 11 12 99	March April May June July August September October November December Unknown or not stated
440-441		2	DLMP_DD	Last Normal Menses Day		U,R	01-31 99	As applicable to month of LMP Unknown or not stated
442-445		4	DLMP_YY	Last Normal Menses Year	r	U,R	99 nnnn 9999	Year of last normal menses Unknown or not stated
446-447		2	ESTGEST	Obstetric/Clinical Gestation	on Est. 573	U,R	0-98 99	0 through 98 th week of gestation Unknown or not stated
448-450		3	FILLER	Filler				
451-452		2	COMBGEST	Gestation – Detail in Wee	ks	U,R	17-47 99	17 th through 47 th week of gestation Unknown
453-454		2	GESTREC10	Gestation Recode 10		U,R	01 02 03 04 05 06 07 08 09 10	Under 20 weeks 20-27 weeks 28-31 weeks 32-35 weeks 36 weeks 37-39 weeks 40 weeks 41 weeks 42 weeks and over Unknown
455		1	GESTREC3	Gestation Recode 3		U,R	1 2 3	Under 37 weeks 37 weeks and over Not stated
456		1	OBGEST_FLG	Clinical Estimate of Gesta	ntion Used Flag	U,R	Blank	Clinical Estimate is not used
	* U,R U R	(revised) Include	d). es data based on both	n the 1989 Revision of the U.S n the 1989 Revision of the U.S n the 2003 Revision of the U.S	. Certificate of Live	Birth; exc	ludes data	

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
						1	Clinical Estimate is used
457	1	GEST_IMP	Gestation Imputed Flag		U,R	Blank 1	Gestation is not imputed Gestation is imputed
458-466	9	FILLER	Filler				
467-470	4	BRTHWGT	Imputed Birthweight		U,R	0227-81 9999	65 Number of grams Not stated birthweight
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 2000 – 2499 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 Fla	ag	U,R	Blank 1	Birth Weight is not imputed Birth Weight is imputed
476-482	7	Abnormal Cond The checkbox iter	itions of the Newborn (Revis ms below follow this structure	<u>sed)</u> ::		Y N U Blank	Yes, Complication reported No Complication reported Unknown or not stated Not on certificate

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

Position	Len	Field	Description	Reporti Flag Po		Rev*	Values	Definition
476 477 478 479 480 481 482	1 1 1 1 1 1	AB_AVEN1 AB_AVEN6 AB_NICU AB_SURF AB_ANTI AB_SEIZ AB_BINJ	Assisted Ventilation Assisted Ventilation >6 hrs Admission to NICU Surfactant Antibiotics Seizures Birth Injury	628 629 630 631 632 633 634	R R R R R R			
483-491	9		itions of the Newborn (Unrey ns indented below follow this s				1 2 9 Blank	Complication reported Complication not reported Complication not classifiable Not on certificate
483 484 485 486 487 488 489 490 491	1 1 1 1 1 1 1 1 1	UAB_ANEM UAB_INJURY UAB_ALCOH UAB_HYAL UAB_MECON UAB_VENL30 UAB_VEN30M UAB_NSEIZ UAB_OTHER	Anemia Birth Injury Fetal Alcohol Syndrome Hyaline Membrane Disease Meconium Aspiration Synd Assisted Ventilation < 30 n Assisted Ventilation >= 30 Seizures Other Abnormal Condition	drome nin min ns	740 741 742 743 744 745 746 747 748	U U U U U U U U U		
492-503	12		nalies of the Newborn (Revise ns below follow this structure:				Y N U Blank	Yes, anomaly reported No, anomaly not reported Unknown Not on certificate
492 493 494 495 496 497 498 499 500 501	1 1 1 1 1 1 1 1 1 1	CA_ANEN CA_MNSB CA_CCHD CA_CDH CA_OMPH CA_GAST CA_LIMB CA_CLEFT CA_CLPAL CA_DOWN	Anencephaly Meningomyelocele/Spina B Cyanotic Congenital Heart Congenital Diaphragmatic Omphalocele Gastroschisis Limb Reduction Defect Cleft Lip w/ or w/o Cleft Pa Cleft Palate alone Downs Syndrome	t Disease Hernia	635 636 637 638 639 640 641 642 643 644	R R R R R R R R R	C P	Confirmed Pending

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

Position	Len	Field		Reporting Flag Position	Rev*	Values	Definition
						N U Blank	No Unknown Not on certificate
502	1	CA_DISOR	Suspected Chromosomal Dis	sorder 645	R	C P N U Blank	Confirmed Pending No Unknown Not on certificate
503	1	СА_НҮРО	Hypospadias	646	R	Y N U Blank	Yes, Anomaly reported No, Anomaly not reported Unknown Not on certificate
504-525	22	The checkbox iter	nalies of the Newborn (Unrevis ns indented below follow this str 1989 Standard unless otherwise	ructure:		1 2 9 Blank	Anomaly reported Anomaly not reported Anomaly not classifiable Not on certificate
504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 * U.R	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	UCA_ANEN UCA_SPINA UCA_HYDRO UCA_HYDRO UCA_MICRO UCA_NERV UCA_HEART UCA_CIRC UCA_RECTAL UCA_TRACH UCA_GASTRO UCA_GENITAL UCA_RENAL UCA_UROGEN UCA_CELFTLP UCA_ADACTY UCA_CLUBFT UCA_HERNIA UCA_MUSCU UCA_DOWNS	Anencephalus Spina Bifida / Meningocele Hydrocephalus Microcephalus Other Central Nervous Syste Heart Malformations Other Circulatory/Respiratic Rectal Atresia / Stenosis Tracheo-Esophageal Fistula Omphalocele / Gastroschisis Other Gastrointestinal Anom Malformed Genitalia Renal Agenesis Other Urogenital Anoms. Cleft Lip / Palate Polydactyly / Syndactyly / Ac Club Foot Diaphragmatic Hernia Other Musculoskeletal Anom Downs Syndrome	757 on Anoms. 759 760 761 ns. 762 763 764 765 766 dactyly 767 768 769 ns. 770 771	3 U,R U,R U,R	rouicad) ou	d 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.

Position	Ι	_en	Field	Description	Reporting Flag Position	Rev*	Values	Definition
524 523			UCA_CHROM UCA_OTHER	Other Chromosomal Anom Other Congenital Anoms.	s. 772 773			
526-568	4	3	FILLER	Filler				
569-773	2	205	Flag File for Report The reporting flags	rting Flags indented below follow this co	oding structure:		0	Not reporting Reporting
569	9 1		F_MORIGIN	Origin of Mother		U,R	1	Reporting
570			F_FORIGIN	Origin of Father		U,R		
57			F_MEDUC	Education of Mother		R		
572			FILLER	Filler				
573	3 1		F_CLINEST	Clinical Estimate of Gestati	ion	U,R		
574			F_APGAR5	Five minute APGAR		U,R		
575			F_TOBACO	Tobacco use		R		
	6-581 6		FILLER	Filler				
582				Prepregnancy Diabetes		R		
583				Gestational Diabetes		R		
584 585				Prepregnancy Hypertension	n	R R		
580				Gestational Hypertension Eclampsia		R		
58				Previous Preterm Birth		R		
588			F_RF_PPO	Poor Pregnancy Outcome		R		
	9-592 4		FILLER	Filler		R		
593			F_RF_CESAR	Previous Cesarean		R		
594	4 1		F_RF_NCESAR	Number of Previous Cesare	ans	R		
595	5-600 6		FILLER	Filler				
60	1 1			Cervical Cerclage		R		
602			F_OB_TOCO	Tocolysis		R		
603			F_OB_SUCC	Successful External Cephal		R		
604				Failed External Cephalic V		R		
60:				Premature Rupture of Men	nbranes	R		
600				Precipitous Labor		R		
60 ⁷ 608			F_OL_PROLONG	_		R R		
609				Induction of Labor Augmentation of Labor		R		
610			F_LD_NVRTX	Non-Vertex Presentation		R		
61			F_LD_STEROIDS			R		
612				Antibiotics		R		
613			F_LD_CHORIO	Chorioamnionitis		R		
614				Meconium Staining		R		

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

Len

Rev*

Values Definition

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		Fetal Presentation	R
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	1	F_ALCOL	Alcohol use	U
650	1	F_API	API Codes	U
651-666	16	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
670-680	11	FILLER	Filler	
681	1	F_URF_ANEMIA	Anemia	U
682	1	F_URF_CARDIAC	C Cardiac	U
683	1	F_URF_LUNG	Acute or Chronic Lung Disease	U
684	1	F_URF_DIABETES	Diabetes	U
685	1	F_URF_HERPES		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.

Flag Position

(9)	1	E LIDE LIVDDA	II. duance (Oliashaduanuaias	TT
686 687	1 1		Hydramnios / Oligohydramnios Hemoglobinopathy	U U
688	1		Chronic Hypertension	U
689	1		Pregnancy Associated Hypertension	U
690	1	F_URF_ECLAMP		U
690 691	1		Incompetent Cervix	U
691 692	1		Previous Infant 4000+ Grams	U
692 693	1		Previous Preterm/Small for Gestation	U
693 694	1		Renal Disease	U
695	1		Renar Disease Rh Sensitization	U
695 696	1	F_URF_UTERINE		U
690 697	1		Other Medical Risk Factors	U
698-700	3		Filler	U
701	3 1		Amniocentesis	U
701	1		Electronic Fetal Monitoring	U
702	1		Induction of Labor	U
703 704	1		Stimulation of Labor	U
704 705	1		Tocolysis	U
705	1	F_UOB_ULTRAS		U
700	1		Other Obstetric Procedures	U
708-710	3		Filler	U
708-710	3 1	F_ULD_FEBRILE		U
712	1	F_ULD_MECONIUM		U
712	1		Premature Rupture of Membrane	U
713	1		Abruption Placenta	U
714 715	1	F_ULD_PREPLACE		U
715	1		Other Excessive Bleeding	U
717	1		Seizures During Labor	U
718	1	F_ULD_PRECIP		U
719	1	F_ULD_PROLONG		U
720	1		Dysfunctional Labor	U
720	1	F_ULD_BREECH		U
722	1		Cephalopelvic Disproportion	U
723	1		Cord Prolapse	U
724	1		Anesthetic Complications	U
725	1	F_ULD_DISTRESS	-	U
726	1		Other Complications	U
727-729	3		Filler	0
730	1		Vaginal	U
731	1		Vaginal after C-Section	U
732	1		Primary C-Section	U
154	1		rimary C-Section	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.

Len

	733	1	F_U_REPEAC	Repeat C-Section	U	
	734	1		Forceps	Ŭ	
	735	1	F_U_VACUUM	Vacuum	U	
	736-739	4	FILLER	Filler	-	
	740	1	F_UAB_ANEMIA	Anemia	U	
	741	1	F_UAB_INJURY		U	
	742	1		Fetal Alcohol Sydrome	U	
	743	1		Hyaline Membrane Disease	U	
	744	1		N Meconium Aspiration Syndrome	U	
	745	1		Assisted Ventilation <30 minutes	U	
	746	1		Assisted Ventilation >=30 minutes	U	
	747	1	F_UAB_NSEIZ	Seizures	U	
	748	1	F_UAB_OTHERAB	Other Abnormal Conditions	U	
	749-751	3	FILLER	Filler		
	752	1	F_UCA_ANEN	Anencephalus	U	
	753	1		Spina Bifida / Meningocele	U	
	754	1	F_UCA_HYDRO	Hydrocephalus	U	
	755	1	F_UCA_MICROCE	Microcephalus	U	
	756	1		Other Central Nervous System Anomalies	U	
	757	1		Heart Malformations	U	
	758	1		Other Circulatory / Respiration Anomalies	U	
	759	1	F_UCA_RECTAL	Rectal Atresia / Stenosis	U	
	760	1		Tracheo-Esophageal Fistula	U	
	761	1		Omphalocele / Gastroschisis	U	
	762	1		Other Gastrointestinal Anomalies	U	
	763	1		A Malformed Genitalia	U	
	764	1	F_UCA_RENALAG		U	
	765	1		Other Urogenital Anomalies	U	
	766	1	F_UCA_CLEFTLP		U	
	767	1		Polydactyly / Syndactyly / Adactyly	U	
	768	1	F_UCA_CLUB	Club Foot	U	
	769	1		Diaphragmatic Hernia	U	
	770	1		Other Musculoskeletal Anomalies	U	
	771	1	F_UCA_DOWNS		U	
	772	1		Other Chromosomal Anomalies	U	
	773	1	F_UCA_OTHRCON	Other Congenital Anomalies	U	
774-799		26	FILLER	Filler		
800-823		24	Mother's Race Ed	ited	R**	100-999 Mother's Race Edited Code A00-R99

* 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	Definiti	on
800 803 806 809 812 815	3 3 3 3 3 3 3	MRACE1E MRACE2E MRACE3E MRACE4E MRACE5E MRACE6E MRACE6E						
818 821	3 3	MRACE7E MRACE8E						
		** Also include:	s unrevised states that are repo	orting multiple race				
824-834	11	FILLER	Filler					
835-858	24	Father's Race I	Edited		R**	100-999 A00-R9		Race Edited Code
835 838 841 844 847 850 853 856	3 3 3 3 3 3 3 3 3 3	FRACE1E FRACE2E FRACE3E FRACE4E FRACE5E FRACE6E FRACE7E FRACE8E					~	
		** Also include:	s unrevised states that are repo	orting multiple race				
859-867	9	FILLER	Filler					
868	1	FLGND	Flag indicating records in	both numerator and	denominato	or file		
							1 Blank	Record in both files

Blank Record not in numerator file

Here ends the Denominator file. Documentation of the Mortality Section of the Numerator (Linked) file begins on the next page.

- * 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.

Positior	1	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
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 09 10 11 12 13 14 15 16 17 18 19 20 21 22	Age 1 year and over or not stated Under 1 hour (includes not stated hours and minutes) 1 – 23 hours 1 day (includes not stated days) 2 days 3 days 4 days 5 days 6 days 7-13 days 14 – 20 days 21 – 27 days 1 month (includes not stated months) 2 months 3 months 4 months 5 months 6 months 7 months 8 months 9 months 10 months 11 months
878		1	MANNER	Manner of Death			1 2 3 4 5 6	Accident Suicide Homicide Pending investigation Could not determine Self-inflicted
	* U,R	(revised	d).	h the 1989 Revision of the U.S				d the 2003 Revision of the U.S. Certificate of Live Birth

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

Position		Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
							7 Blank	Natural Not specified
879		1	DISPO	Method of Disposition			B C O U	Burial Cremation Other Unknown
880		1	AUTOPSY	Autopsy			Y N U	Yes No Unknown
881		1	FILLER	Filler				
882		1	PLACE	Place of injury for causes and Y07	W00-Y34, except Y	706	0 1 2 3 4 5 6 7 8 9 Blank	Home Residential institution School, other institution and public administrative area Sports and athletics area Street and highway Trade and service area Industrial and construction area Farm Other Specified Places Unspecified place Cause other than W00-Y34, except Y06 and Y07
883		1	FILLER	Filler				
884-887		4	UC0D	ICD Code (10 th Revision) See the <u>International Classi</u> Revision, Volume 1.	fication of Diseases,	1992		
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 weight	ts computed for poss	essions fil	e)1.XXXX	XXX
*	U,R	(revised	l).	the 1989 Revision of the U.S				d the 2003 Revision of the U.S. Certificate of Live Birth

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

Position	Len	Field	Description		Reporting Flag Position	Rev*	Values	Definition
901-902	2	FILLER	Filler					
903-904	2	EANUM	Number of Entity	-Axis Co	nditions		00-20	Code range
905-1044	140	ENTITY	Entity-Axis Cond Space has been pro Each condition tak position will be bla are blank in the un	ovided for es 7 positi ank. Recor	ions in the record. T ds that do not have	The 7 th	ons	
			Position 1: 1 2 3 4 5 6	Part/line	number on certific: Part I, line 1 (a) Part I, line 2 (b) Part I, line 3 (c) Part I, line 4 (d) Part I, line 5 (e) Part II	ate		
			Position 2: 1-7	Sequenc	e of condition withi Code range	in part/line		
			Position 3 – 6: Cor See Tabl		de complete list of code	es		
905-911 912-918 919-925 926-932 933-939 940-946 947-953 954-960 961-967 968-974 975-981 982-988 989-995 996-100 1003-10 1010-10	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7		1 st Condition 2 nd Condition 3 rd Condition 4 th Condition 5 th Condition 6 th Condition 7 th Condition 9 th Condition 10 th Condition 11 th Condition 13 th Condition 13 th Condition 14 th Condition 15 th Condition 16 th Condition 17 th Condition					

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

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
1024-102 1031-102 1038-104	37 7		18 th Condition 19 th Condition 20 th Condition				
1045-1046	2	FILLER	Filler				
1047-1048	2	RANUM	Number of Record-Axis Co	onditions		00-20	Code range
1049-1148	100	RECORD	Record-Axis Conditions Space has been provided for conditions. Each condition ta record. The 5 th position will do not have 20 conditions ar Positions 1 – 4: Condition C See Table 1 for a c	akes 5 positions in the be blank. Records the blank in the unused	nat d area.		
1049-10; 1054-10; 1054-10; 1059-10; 1064-10; 1069-10; 1069-10; 1074-10; 1079-10; 1084-10; 1089-10; 1099-11; 1104-11; 1109-11; 1114-11; 1119-11; 1124-11; 1129-11; 1124-11; 1139-114; 1139-114; 1139-114; 1144+114; 1144+114; 1144+14; 1144+14; 1144+14; 1144+114; 1144+14; 1144+114; 1144+14; 114; 1	58 5 63 5 68 5 73 5 78 5 83 5 93 5 93 5 93 5 98 5 03 5 98 5 03 5 13 5 13 5 13 5 13 5 23 5 28 5 33 5 33 5 33 5		1 st Condition 2 nd Condition 3 rd Condition 4 th Condition 5 th Condition 6 th Condition 7 th Condition 8 th Condition 10 th Condition 10 th Condition 11 th Condition 13 th Condition 13 th Condition 15 th Condition 15 th Condition 16 th Condition 18 th Condition 19 th Condition 20 th Condition				
1149-1150	2	FILLER	Filler				

1151 1 D_RESTATUS Death Resident Status

- * 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
			United States Occurrence			1	RESIDENTS
							State and County of Occurrence and Residence are the
						2	same. 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
						4	are in the U.S. 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
						4	both are a Territory. FOREIGN RESIDENTS
							Occurred in Puerto Rico to a resident of any other place.
			Virgin Islands Occurrence			1	RESIDENTS
							Territory and County-equivalent of Occurrence and Residence are the same.
						2	INTRASTATE NONRESIDENTS Territory of Occurrence and Residence are the same, but
						2	County-equivalent is different.
						3	INTERTERRITORY NONRESIDENTS Territory of occurrence and residence are different, but
						4	both are a Territory. 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.
* U,I	R Include	es data based on bot	th the 1989 Revision of the U.S	. Certificate of Live	Birth (unr	evised), an	d the 2003 Revision of the U.S. Certificate of Live Birth

- * 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
					3	3	INTERTERRITORY NONRESIDENTS Territory of occurrence and residence are different, but both are a Territory. 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 (F (This item is available in only, geographic codes available in the U.S.file)	n the territory file are not			
					,	PR VI GU	Puerto Rico Virgin Islands Guam
1154-1156	3	CNTOCFIPD	County of Occurrence Counties and county equicoextensive cities) are in State and identify each of a county, both the state a complete list of counties Outline further back in t (This item is available in only, geographic codes available in the U.S.file)	aivalents (independent a umbered alphabetically county. (Note: To uniq and county codes must as is shown in the Geogr his document. In the territory file are not	within each uely identify be used.) A		
						001-nnn 999	Code range County of less than 250,000
1157-1159	3	FILLER	Filler				
1160-1161	2	STRESFIPD	State of Residence (FII (This item is available in only, geographic codes available in the U.S.file)	n the territory file are not			
			Territories		•	PR VI GU	Puerto Rico Virgin Islands Guam

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

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
			Puerto Rico Occurrence			PR US,ZZ	Puerto Rico Foreign residents
			Virgin Islands Occurrence			VI	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 Residenc (This item is available in the only, geographic codes are available in the U.S.file)	e territory 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
			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 Counties and county equiva coextensive cities) are numb	lents (independent a			
* U,I			h the 1989 Revision of the U.S.	Certificate of Live I	Birth (unre	evised), an	d the 2003 Revision of the U.S. Certificate of Live Birth
U P		es data based on bot	h the 1989 Revision of the U.S.				

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
			each State and identify each identify a county, both the be used.) A complete list of Geographic Code Outline f	state and county code of counties is shown in	es must n the		
			(This item is available in th only, geographic codes are available in the U.S.file)	e territory file e not			
						000 001-nnn 999	Foreign residents Code range County of less than 250,000
1169-1181	13	FILLER	Filler				
1182	1	CNTRSPPD	Population Size of County Based on the results of the (This item is available in th only, geographic codes are available in the U.S.file)	2000 Census ne territory file	ath		
						0 1	County of 1,000,000 or more County of 500,000 to 1,000,000
						2	County of 250,000 to 500,000
						9 Z	County of less than 250,000 Foreign residents
						L	Foreign residents
1183-1185	3	FILLER	Filler				
1186	1	HOSPD	Place of Death and Decen	dent's Status		1 2	Hospital, clinic or Medical Center – Inpatient Hospital, clinic or Medical Center – Outpatient or admitted to Emergency Room
						3	Hospital, clinic or Medical Center – Dead on Arrival
						4	Decedent's home
						5 6	Hospice facility Nursing home/long term care
						0 7	Other
						9	Place of death unknown
1187	1	WEEKDAYD	Day of Week of Death			1	Sunday
			· · · · · · · · · · · · · · · · · · ·			2	Monday
						3	Tuesday
* I⊺ P	Include	e data based on bot	h the 1989 Revision of the US	Certificate of Live I	Rirth (unr	evised) an	d the 2003 Revision of the U.S. Certificate of Live Birth

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

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
						4 5 6 7 9	Wednesday Thursday Friday Saturday Unknown
1188-1191	4	DTHYR	Death Year			2005	2005
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.

Tenth Revision 130 Selected Causes of Infant Death Adapted for use by DVS Page 1 ST: 1 =Subtotal Limited: Sex: 1 = Males; 2 = Females Age: 1 = 5 and over; 2 = 10-54; 3 = 28 days and over 4 = Under 1 year; 5 = 1-4 years; 6 = 1 year and over 7 = 10 years and over ***** Cause Subtotals are not identified in this file ***** 130 S Limited T Sex Age Cause Title and ICD-10 Codes Included Recode 001 1 Certain infectious and parasitic diseases (A00-B99) 002 Certain intestinal infectious diseases (A00-A08) 003 Diarrhea and gastroenteritis of infectious origin (A09) 004 Tuberculosis (A16-A19) 005 Tetanus (A33,A35) 006 Diphtheria (A36) 007 Whooping cough (A37) 008 Meningococcal infection (A39) Septicemia (A40-A41) 009 3 010 Congenital syphilis (A50) Gonococcal infection (A54) 011 012 1 Viral diseases (A80-B34) 013 Acute poliomyelitis (A80) 014 Varicella (chickenpox) (B01) 015 Measles (B05) 016 Human immunodeficiency virus (HIV) disease (B20-B24) 017 Mumps (B26) Other and unspecified viral diseases (A81-B00,B02-B04,B06-B19,B25,B27-B34) 018 019 Candidiasis (B37) 020 Malaria (B50-B54) 021 Pneumocystosis (B59) All other and unspecified infectious and parasitic diseases 022 (A20-A32,A38,A42-A49,A51-A53,A55-A79,B35-B36,B38-B49,B55-B58,B60-B99) 023 Neoplasms (C00-D48) 1 024 1 Malignant neoplasms (C00-C97) 025 Hodgkin's disease and non-Hodgkin's lymphomas (C81-C85) 026 Leukemia (C91-C95) 027 Other and unspecified malignant neoplasms (COO-C80,C88,C90,C96-C97) 028 In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior (D00-D48) 029 1 Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism (D50-D89) 030 Anemias (D50-D64) Hemorrhagic conditions and other diseases of blood and blood-forming organs 031 (D65-D76) 032 Certain disorders involving the immune mechanism (D80-D89) 033 Endocrine, nutritional and metabolic diseases (E00-E88) 1 Short stature, not elsewhere classified (E34.3) 034 035 Nutritional deficiencies (E40-E64) 036 Cystic fibrosis (E84) 037 3 Volume depletion, disorders of fluid, electrolyte and acid-base balance (E86-E87) 038 All other endocrine, nutritional and metabolic diseases (E00-E32,E34.0-E34.2,E34.4-E34.9,E65-E83,E85,E88) 039 1 Diseases of the nervous system (G00-G98) 040 Meningitis (G00,G03) 041 Infantile spinal muscular atrophy, type I (Werdnig-Hoffman) (G12.0) Infantile cerebral palsy (G80) 042 Anoxic brain damage, not elsewhere classified (G93.1) 043 044 Other diseases of nervous system (G04,G06-G11,G12.1-G12.9,G20-G72,G81-G92,G93.0,G93.2-G93.9,G95-G98) 045 Diseases of the ear and mastoid process (H60-H93) 046 1 Diseases of the circulatory system (IOO-I99) 047 Pulmonary heart disease and diseases of pulmonary circulation (126-128) 048 Pericarditis, endocarditis and myocarditis (I30, I33, I40) 049 Cardiomyopathy (142) 050 Cardiac arrest (I46) 051 Cerebrovascular diseases (I60-I69) 052 All other diseases of circulatory system (I00-I25,I31,I34-I38,I44-I45,I47-I51, I70-I99) 053 Diseases of the respiratory system (J00-J98) 1 054 Acute upper respiratory infections (J00-J06) 055 1 Influenza and pneumonia (J10-J18)

Tenth Revision 130 Selected Causes of Infant Death Adapted for use by DVS Page 2 ST: 1 =Subtotal Limited: Sex: 1 = Males; 2 = Females Age: 1 = 5 and over; 2 = 10-54; 3 = 28 days and over 4 = Under 1 year; 5 = 1-4 years; 6 = 1 year and over 7 = 10 years and over ***** Cause Subtotals are not identified in this file ***** 130 S Limited T Sex Age Cause Title and ICD-10 Codes Included Recode 056 Influenza (J10-J11) 057 Pneumonia (J12-J18) 058 Acute bronchitis and acute bronchiolitis (J20-J21) 059 Bronchitis, chronic and unspecified (J40-J42) 060 Asthma (J45-J46) 061 Pneumonitis due to solids and liquids (J69) 062 Other and unspecified diseases of respiratory system (J22,J30-J39,J43-J44,J47-J68,J70-J98) Diseases of the digestive system (K00-K92) 063 1 Gastritis, duodenitis, and noninfective enteritis and colitis (K29,K50-K55) 064 065 Hernia of abdominal cavity and intestinal obstruction without hernia (K40-K46,K56) 066 All other and unspecified diseases of digestive system (K00-K28,K30-K38,K57-K92) 067 Diseases of the genitourinary system (N00-N95) 1 068 Renal failure and other disorders of kidney (N17-N19,N25,N27) 069 Other and unspecified diseases of genitourinary system (N00-N15,N20-N23,N26,N28-N95) 070 1 Certain conditions originating in the perinatal period (POO-P96) 071 1 Newborn affected by maternal factors and by complications of pregnancy, labor and delivery (P00-P04) 072 Newborn affected by maternal hypertensive disorders (P00.0) 073 Newborn affected by other maternal conditions which may be unrelated to present pregnancy (P00.1-P00.9) 074 Newborn affected by maternal complications of pregnancy (P01) 1 Newborn affected by incompetent cervix (P01.0) 075 076 Newborn affected by premature rupture of membranes (P01.1) 077 Newborn affected by multiple pregnancy (P01.5) 078 Newborn affected by other maternal complications of pregnancy (P01.2-P01.4,P01.6-P01.9) 079 Newborn affected by complications of placenta, cord and membranes (P02) 1 080 Newborn affected by complications involving placenta (P02.0-P02.3) 081 Newborn affected by complications involving cord (P02.4-P02.6) 082 Newborn affected by chorioamnionitis (P02.7) 083 Newborn affected by other and unspecified abnormalities of membranes (P02.8-P02.9) 084 Newborn affected by other complications of labor and delivery (PO3) Newborn affected by noxious influences transmitted via placenta or breast milk 085 (P04) 086 1 Disorders related to length of gestation and fetal malnutrition (P05-P08) 087 Slow fetal growth and fetal malnutrition (P05) Disorders related to short gestation and low birthweight, not elsewhere 088 1 classified (P07) 089 Extremely low birthweight or extreme immaturity (P07.0,P07.2) 090 Other low birthweight or preterm (P07.1,P07.3) 091 Disorders related to long gestation and high birthweight (P08) 092 Birth trauma (P10-P15) 093 Intrauterine hypoxia and birth asphyxia (P20-P21) 1 094 Intrauterine hypoxia (P20) 095 Birth asphyxia (P21) 096 Respiratory distress of newborn (P22) 097 1 Other respiratory conditions originating in the perinatal period (P23-P28) 098 Congenital pneumonia (P23) 099 Neonatal aspiration syndromes (P24) 100 Interstitial emphysema and related conditions originating in the perinatal period (P25) 101 Pulmonary hemorrhage originating in the perinatal period (P26) 102 Chronic respiratory disease originating in the perinatal period (P27) 103 Atelectasis (P28.0-P28.1) 104 All other respiratory conditions originating in the perinatal period (P28.2-P28.9) 105 Infections specific to the perinatal period (P35-P39) 1 106 Bacterial sepsis of newborn (P36) 107 Omphalitis of newborn with or without mild hemorrhage (P38)

Tenth Revision 130 Selected Causes of Infant Death Adapted for use by DVS Page 3 ST: 1 =Subtotal Limited: Sex: 1 = Males; 2 = Females Age: 1 = 5 and over; 2 = 10-54; 3 = 28 days and over 4 = Under 1 year; 5 = 1-4 years; 6 = 1 year and over 7 = 10 years and over ***** Cause Subtotals are not identified in this file ***** 130 S Limited T Sex Age Cause Title and ICD-10 Codes Included Recode 108 All other infections specific to the perinatal period (P35, P37, P39) 109 1 Hemorrhagic and hematological disorders of newborn (P50-P61) 110 Neonatal hemorrhage (P50-P52,P54) 111 Hemorrhagic disease of newborn (P53) 112 Hemolytic disease of newborn due to isoimmunization and other perinatal jaundice (P55-P59) 113 Hematological disorders (P60-P61) 114 Syndrome of infant of a diabetic mother and neonatal diabetes mellitus (P70.0-P70.2) 115 Necrotizing enterocolitis of newborn (P77) Hydrops fetalis not due to hemolytic disease (P83.2) 116 117 Other perinatal conditions (P29, P70.3-P70.9, P71-P76, P78-P81, P83.0-P83.1, P83.3-P83.9,P90-P96) Congenital malformations, deformations and chromosomal abnormalities (000-099) 118 1 119 Anencephaly and similar malformations (Q00) 120 Congenital hydrocephalus (Q03) 121 Spina bifida (Q05) Other congenital malformations of nervous system (Q01-Q02,Q04,Q06-Q07) 122 123 Congenital malformations of heart (Q20-Q24) 124 Other congenital malformations of circulatory system (Q25-Q28) 125 Congenital malformations of respiratory system (Q30-Q34) Congenital malformations of digestive system (Q35-Q45) 126 127 Congenital malformations of genitourinary system (Q50-Q64) 128 Congenital malformations and deformations of musculoskeletal system, limbs and integument (Q65-Q85) 129 Down's syndrome (Q90) Edward's syndrome (Q91.0-Q91.3) 130 131 Patau's syndrome (Q91.4-Q91.7) 132 Other congenital malformations and deformations (Q10-Q18,Q86-Q89) 133 Other chromosomal abnormalities, not elsewhere classified (Q92-Q99) 134 1 Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99) 135 Sudden infant death syndrome (R95) Other symptoms, signs and abnormal clinical and laboratory findings, not elsewhere 136 classified (R00-R53,R55-R94,R96-R99) 137 All other diseases (Residual) (F01-F99,H00-H57,L00-M99) External causes of mortality (*U01,V01-Y84) 138 1 Accidents (unintentional injuries) (V01-X59) 139 1 140 1 Transport accidents (V01-V99) 141 Motor vehicle accidents(V02-V04,V09.0,V09.2,V12-V14,V19.0-V19.2, V19.4-V19.6,V20-V79,V80.3-V80.5,V81.0-V81.1,V82.0-V82.1,V83-V86, V87.0-V87.8,V88.0-V88.8,V89.0,V89.2) 142 Other and unspecified transport accidents (V01,V05-V06,V09.1,V09.3-V09.9,V10-V11,V15-V18,V19.3, V19.8-V19.9,V80.0-V80.2,V80.6-V80.9,V81.2-V81.9,V82.2-V82.9, V87.9,V88.9,V89.1,V89.3,V89.9,V90-V99) Falls (W00-W19) 143 144 Accidental discharge of firearms (W32-W34) 145 Accidental drowning and submersion (W65-W74) 146 Accidental suffocation and strangulation in bed (W75) Other accidental suffocation and strangulation (W76-W77,W81-W84) 147 148 Accidental inhalation and ingestion of food or other objects causing obstruction of respiratory tract (W78-W80) 149 Accidents caused by exposure to smoke, fire and flames (X00-X09) 150 Accidental poisoning and exposure to noxious substances (X40-X49) 151 Other and unspecified accidents (W20-W31,W35-W64,W85-W99,X10-X39,X50-X59) 152 1 Assault (homicide) (*U01,X85-Y09) 153 Assault (homicide) by hanging, strangulation and suffocation (X91) 154 Assault (homicide) by discharge of firearms (*U01.4,X93-X95) 155 Neglect, abandonment and other maltreatment syndromes (Y06-Y07) 156 Assault (homicide) by other and unspecified means (*U01.0-*U01.3,*U01.5-*U01.9,X85-X90,X92,X96-X99,Y00-Y05,Y08-Y09) 157 Complications of medical and surgical care (Y40-Y84)

Tenth Revision 130 Selected Causes of Infant Death Adapted for use by DVS ST: 1 = Subtotal Limited: Sex: 1 = Males; 2 = Females Age: 1 = 5 and over; 2 = 10-54; 3 = 28 days and over 4 = Under 1 year; 5 = 1-4 years; 6 = 1 year and over 7 = 10 years and over ***** Cause Subtotals are not identified in this file ***** 130 S Limited

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

158 Other external causes (X60-X84,Y10-Y36)

Page 4

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, 2005 Period Data. (Residence of birth is of the mother)

	Live b	irths	Infant deaths						
State	Occurence	Residence	Unweig Occurence	ghted Residence	Weighte Occurence	d 1/ Residence			
State	Occurence	Residence	Occurence	Residence	Occurence	Residence			
United States /2	4145883	4138573	28101	28021	28466	28384			
Alabama	59300	60453	568	575	569	576			
Alaska	10366	10459	60	62	60	62			
Arizona	96549	96199	644	646	657	659			
Arkansas	38384	39208	283	306	284	307			
California	550143	548882	2834	2836	2916	2918			
Colorado	69210	68944	466	444	466	444			
Connecticut	42145	41718	233	244	233	244			
Delaware	12265	11643	105	105	105	105			
Dist of Columbia	14312	7971	146	109	146	109			
Florida	226759	226243	1645	1636	1648	1639			
Georgia	143491	142200	1166	1147	1167	1148			
Hawaii	17923	17924	120	116	122	118			
Idaho	22526	23062	122	137	123	138			
Illinois	175721	179020	1252	1303	1271	1322			
Indiana	87864	87193	680	698	682	701			
Iowa	39338	39311	198	214	198	214			
Kansas	40743	39888	290	294	290	294			
Kentucky	54593	56444	335	374	340	380			
Louisiana	60485	60937	599	564	637	600			
Maine	13989	14112	97	97	97	97			
Maryland	71302	74980	532	547	532	547			
Massachusetts	77839	76866	398	393	399	394			
Michigan	126618	127706	1011	1007	1011	1007			
Minnesota	70953	70919	376	361	376	361			
Mississippi	41179	42395	453	481	458	486			
Mississippi Missouri	79531	78618	640	587	644	591			
Montana	11556	11583	84	84	84	84			
Nebraska	26350	26145	159	148	159	148			
Nevada	36958	37268	208	206	213	211			
New Hampshire	13968	14424	208	76	71	76			
New Jersey	110837	113778	556	584	560	588			
New Mexico									
	28346 125301	28835 128858	172 745	175 770	175 754	178 779			
New York			689	654	689	654			
New York City	122724	117507							
North Carolina	123951	123096	1080	1081	1084	1085			
North Dakota	9622	8390	58	50	58	50			
Ohio	148912	148388	1220	1185	1250	1213			
Oklahoma	50657	51801	403	410	405	412			
Oregon	46715	45922	287	267	296	275			
Pennsylvania	144965	145399	1084	1055	1089	1060			
Rhode Island	13486	12697	100	82	100	82			
South Carolina	55324	57711	507	546	507	546			
South Dakota	11958	11462	81	79	82	80			
Tennessee	87083	81748	802	715	804	717			
Texas	392222	385920	2434	2422	2539	2526			
Utah	52563	51556	246	231	248	233			
Vermont	6138	6473	44	42	44	42			
Virginia	102647	104555	759	778	762	781			
Washington	82372	82703	411	416	414	419			
West Virginia	21150	20836	172	170	172	170			
Wisconsin	69771	70984	446	464	446	464			
Wyoming	6779	7239	30	48	30	48			
Foreign Residents	-	7310	-	80	-	80			
Puerto Rico	50688	50564	470	466	470	466			
Virgin Islands	1688	1605	9	12	9	12			
Guam	3202	3180	34	34	34	34			

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.

04/30/08

Documentation Table 2. Live births, infant deaths and infant mortality rates by race of mother, sex and birthweight of child United States, 2005 Period Data.

[Infant death are 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										
Both sexes										
Live births Infant deaths Infant mortality rate	28,384	7,274 6,232 856.75	11,754 5,502 468.10	12,526 1,884 150.41	14,352 1,023 71.28	17,123 799 46.66	66,584 1,789 26.87	210,539 2,293 10.89	3797879 8,741 2.30	542 121 223.25
Male										
Live births Infant deaths Infant mortality rate		3,619 3,142 868.20	6,000 3,192 532.00	6,531 1,222 187.11	7,353 620 84.32	8,593 441 51.32	32,618 970 29.74	96,772 1,224 12.65	1957319 5,124 2.62	296 80 270.27
Female										
Live births Infant deaths Infant mortality rate	12,368	3,655 3,089 845.14	5,754 2,310 401.46	5,995 662 110.43	6,999 403 57.58	8,530 357 41.85	33,966 819 24.11	113,767 1,069 9.40	1840560 3,617 1.97	246 42 170.73
White										
Both sexes										
Live births Infant deaths Infant mortality rate		4,058 3,491 860.28	6,866 3,285 478.44	7,732 1,235 159.73	9,222 686 74.39	11,516 529 45.94	45,938 1,224 26.64	146,565 1,617 11.03	2997236 6,372 2.13	361 63 174.52
Male										
Live births Infant deaths Infant mortality rate		2,019 1,749 866.27	3,490 1,872 536.39	4,058 795 195.91	4,847 414 85.41	5,834 293 50.22	22,771 661 29.03	67,826 886 13.06	1544877 3,787 2.45	195 43 220.51
Female										
Live births Infant deaths Infant mortality rate		2,039 1,741 853.85	3,376 1,413 418.54	3,674 440 119.76	4,375 272 62.17	5,682 236 41.53	23,167 563 24.30	78,739 731 9.28	1452359 2,585 1.78	166 19 *
Black										
Both sexes										
Live births Infant deaths Infant mortality rate	633,152 8,393 13.26	2,864 2,444 853.35	4,340 1,945 448.16	4,172 563 134.95	4,378 275 62.81	4,659 221 47.44	16,632 456 27.42	49,415 558 11.29	546,550 1,878 3.44	142 53 373.24
Male										
Live births Infant deaths Infant mortality rate	321,270 4,701 14.63	1,432 1,248 871.51	2,217 1,164 525.03	2,129 372 174.73	166	2,286 127 55.56	7,802 255 32.68	274	281,127 1,064 3.78	80 31 387.50
Female										
Live births Infant deaths Infant mortality rate	311,882 3,692 11.84	1,432 1,196 835.20	2,123 780 367.40	2,043 192 93.98	109	2,373 94 39.61		284	265,423 814 3.07	62 21 338.71

04/30/08

Documentation Table 2. Live births, infant deaths and infant mortality rates by race of mother, sex and birthweight of child United States, 2005 Period Data.

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

Race of mother and sex T	otal	<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
American Indian /1										
Both sexes										
Live births Infant deaths Infant mortality rate	44,815 361 8.06	58 46 793.10	91 41 450.55	109 11 *		142 10 *	651 20 30.72	2,125 29 13.65	41,493 184 4.43	9 0 *
Male										
Live births Infant deaths Infant mortality rate	22,674 195 8.60	30 24 800.00	47 24 510.64	60 7 *	11	64 4 *	307 10 *	979 16 *	21,109 98 4.64	3 0 *
Female										
Live births Infant deaths Infant mortality rate	22,141 166 7.50	28 22 785.71	44 17 *	49 4 *		78 6 *	344 10 *	1,146 13 *	20,384 86 4.22	6 0 *
Asian or Pacific Islander										
Both sexes										
Live births Infant deaths Infant mortality rate	231,112 1,129 4.89	294 250 850.34	457 231 505.47	513 74 144.25		806 39 48.39	3,363 89 26.46	12,434 89 7.16	212,600 307 1.44	30 6 *
Male										
Live births Infant deaths Infant mortality rate	119,240 620 5.20	138 121 876.81	246 131 532.52	284 48 169.01		409 17 *	1,738 44 25.32	5,881 49 8.33	110,206 175 1.59	18 5 *
Female										
Live births Infant deaths Infant mortality rate	111,872 510 4.56	156 129 826.92	211 99 469.19	229 26 113.54	295 15 *	397 21 52.90	1,625 45 27.69	6,553 40 6.10	102,394 132 1.29	12 1 *

* Figure does not meet standard of reliability or precision; based on fewer then 20 deaths in the numerator - Quantity zero /1 Includes Aleut and Eskimos

Live births, infant deaths, and infant mortality rates by birthweight, race of mother, and gestational age: United states, 2005 period data

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

					Ges	tation				
Birthweight	Total	<28 Weeks	28-31 Weeks	32-33 Weeks	34-36 Weeks	37-39 Weeks	40 Weeks	41 Weeks	42 Weeks or more	Not Stated
All races										
Total										
Live births Infant deaths Infant mortality rate	28,384	31,606 12,923 408.88	51,822 2,364 45.62	65,853 1,099 16.69	373,663 2,727 7.30	2,199,904 5,796 2.63	790,465 1,563 1.98	355,868 757 2.13	239,850 637 2.66	29,542 516 17.47
Less then 2,500 grams										
Live births Infant deaths Infant mortality rate	340,152 19,521 57.39	30,511 12,899 422.77	39,790 2,247 56.47	43,470 910 20.93	113,576 1,547 13.62	86,976 1,184 13.61	11,450 211 18.43	5,063 99 19.55	6,090 120 19.70	3,226 304 94.23
Less then 500 grams										
Live births Infant deaths Infant mortality rate	7,274 6,232 856.75	6,839 5,917 865.18	243 166 683.13	12 8 *	12 9 *	7 3 *	10 10 *	7 7 *	1 1 *	143 109 762.24
500-749 grams										
Live births Infant deaths Infant mortality rate	11,754 5,502 468.10	10,129 5,014 495.01	1,279 346 270.52	67 24 358.21	52 19 *	28 10 *	10 4 *	4 1 *	3 2 *	182 81 445.05
750-999 grams										
Live births Infant deaths Infant mortality rate	12,526 1,884 150.41	7,675 1,409 183.58	4,073 379 93.05	306 28 91.50	165 20 121.21	119 14 *	28 4 *	12 1 *	11 - -	137 28 204.38
1,000-1,249 grams										
Live births Infant deaths Infant mortality rate	14,352 1,023 71.28	3,277 363 110.77	7,851 439 55.92	1,565 90 57.51	784 72 91.84	426 29 68.08	128 9 *	76 5 *	72 5 *	173 11 *
1,250-1,499 grams										
Live births Infant deaths Infant mortality rate	17,123 799 46.66	907 83 91.51	9,110 364 39.96	3,597 141 39.20	2,180 125 57.34	742 56 75.47	186 5 *	87 5 *	128 5 *	186 15 *
1,500-1,999 grams										
Live births Infant deaths Infant mortality rate	66,584 1,789 26.87	1,004 89 88.65	12,777 423 33.11	19,480 375 19.25	22,531 475 21.08	7,788 310 39.80	1,074 36 33.52	511 24 46.97	775 30 38.71	644 26 40.37
2,000-2,499 grams										
Live births Infant deaths Infant mortality rate	210,539 2,293 10.89	680 24 35.29	4,457 130 29.17	18,443 243 13.18	87,852 826 9.40	77,866 761 9.77	10,014 142 14.18	4,366 56 12.83	5,100 77 15.10	1,761 34 19.31
2,500-2,999 grams										
Live births Infant deaths Infant mortality rate	748,527 3,136 4.19	1,095 24 21.92	4,316 52 12.05	9,662 107 11.07	125,923 687 5.46	443,883 1,617 3.64	89,338 320 3.58	36,407 159 4.37	32,581 143 4.39	5,322 28 5.26
3,000-3,499 grams										
Live births Infant deaths Infant mortality rate	3,437	- -	5,153 45 8.73	8,165 57 6.98	91,592 342 3.73	940,927 1,920 2.04	315,395 591 1.87	131,667 252 1.91	94,208 204 2.17	10,639 27 2.54

See footnotes at end of table.

Live births, infant deaths, and infant mortality rates by birthweight, race of mother, and gestational age: United states, 2005 period data

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

	Gestation											
Birthweight	Total	<28 Weeks	28-31 Weeks	32-33 Weeks	34-36 Weeks	37-39 Weeks	40 Weeks	41 Weeks	42 Weeks or more	Not Stated		
All races												
3,500-3,999 grams												
Live births Infant deaths Infant mortality rate	1,115,475 1,635 1.47	- - -	2,563 20 7.80	3,672 19 *	34,505 101 2.93	576,083 835 1.45	281,085 328 1.17	131,336 179 1.36	78,848 134 1.70	7,383 19 *		
4,000-4,499 grams												
Live births Infant deaths Infant mortality rate	289,269 418 1.45	- -	- -	773 2 *	6,805 28 4.11	131,702 200 1.52	80,487 93 1.16	43,655 52 1.19	23,773 33 1.39	2,074 9 *		
4,500-4,999 grams												
Live births Infant deaths Infant mortality rate	42,143 93 2.21	- -	- -	90 1 *	1,089 17 *	18,097 35 1.93	11,631 17 *	7,059 13 *	3,867 3 *	310 6 *		
5,000 grams or more												
Live births Infant deaths Infant mortality rate	4,719 21 4.45	- - -	- - -	21 3 *	173 4 *	2,236 5 *	1,079 3 *	681 3 *	483 1 *	46 2 *		
Not stated												
Live births Infant deaths Infant mortality rate	542 121 223.25	- - -	- -	- - -	- - -	- - -	- - -	- - -	- - -	542 121 223.25		
White												
Total												
Live births Infant deaths Infant mortality rate		18,549 7,569 408.05	35,083 1,569 44.72	46,827 762 16.27	277,783 1,926 6.93	1,723,239 4,198 2.44	628,396 1,159 1.84	285,363 529 1.85	190,725 459 2.41	23,529 329 13.98		
Less then 2,500 grams												
Live births Infant deaths Infant mortality rate	231,897 12,066 52.03	17,865 7,554 422.84	26,716 1,476 55.25	30,967 631 20.38	80,043 1,069 13.36	58,663 829 14.13	7,659 158 20.63	3,462 66 19.06	4,210 84 19.95	2,312 199 86.07		
Less then 500 grams												
Live births Infant deaths Infant mortality rate	4,058 3,491 860.28	3,785 3,296 870.81	145 97 668.97	5 3 *	11 9 *	5 2 *	6 6 *	1 1 *	1 1 *	99 74 747.47		
500-749 grams												
Live births Infant deaths Infant mortality rate	6,866 3,285 478.44	5,843 2,982 510.35	801 208 259.68	45 16 *	37 15 *	15 5 *	6 2 *	- - -	1 1 *	118 55 466.10		
750-999 grams												
Live births Infant deaths Infant mortality rate	7,732 1,235 159.73	4,678 915 195.60	2,519 247 98.05	204 21 102.94	104 17 *	92 12 *	22 3 *	9 1 *	8 - -	96 18 *		
1,000-1,249 grams												
Live births Infant deaths Infant mortality rate	9,222 686 74.39	2,001 236 117.94	5,072 294 57.97	1,048 66 62.98	523 54 103.25	280 19 *	82 5 *	53 2 *	37 1 *	126 8 *		

See footnotes at end of table.

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

-					Gest	tation				
Birthweight	Total	<28 Weeks	28-31 Weeks	32-33 Weeks	34-36 Weeks	37-39 Weeks	40 Weeks	41 Weeks	42 Weeks or more	Not Stated
White										
1,250-1,499 grams										
Live births Infant deaths Infant mortality rate	11,516 529 45.94	541 51 94.27	6,173 241 39.04	2,424 95 39.19	1,461 89 60.92	497 37 74.45	132 3 *	66 4 *	86 4 *	136 5 *
1,500-1,999 grams										
Live births Infant deaths Infant mortality rate	45,938 1,224 26.64	615 62 100.81	9,011 292 32.40	13,671 251 18.36	15,318 325 21.22	5,268 216 41.00	713 27 37.87	357 13 *	535 18 *	450 20 44.44
2,000-2,499 grams										
Live births Infant deaths Infant mortality rate	146,565 1,617 11.03	402 12 *	2,995 95 31.72	13,570 178 13.12	62,589 560 8.95	52,506 537 10.23	6,698 111 16.57	2,976 44 14.78	3,542 59 16.66	1,287 19 *
2,500-2,999 grams										
Live births Infant deaths Infant mortality rate	533,839 2,182 4.09	684 15 *	2,784 41 14.73	6,594 72 10.92	93,377 493 5.28	315,198 1,112 3.53	62,204 229 3.68	25,777 107 4.15	23,229 97 4.18	3,992 16 *
3,000-3,499 grams										
Live births Infant deaths Infant mortality rate	1,241,931 2,505 2.02	- - -	3,632 38 10.46	5,776 42 7.27	70,339 240 3.41	735,145 1,419 1.93	243,363 421 1.73	101,995 172 1.69	73,198 150 2.05	8,483 21 2.48
3,500-3,999 grams										
Live births Infant deaths Infant mortality rate	930,616 1,266 1.36	- -	1,951 14 *	2,794 14 *	27,489 82 2.98	482,690 654 1.35	234,283 257 1.10	109,412 131 1.20	65,750 98 1.49	6,247 15 *
4,000-4,499 grams										
Live births Infant deaths Infant mortality rate	250,377 331 1.32	- - -	- - -	611 1 *	5,521 25 4.53	114,103 153 1.34	69,846 78 1.12	37,919 39 1.03	20,559 26 1.26	1,818 8 *
4,500-4,999 grams										
Live births Infant deaths Infant mortality rate	36,489 70 1.92	- - -	- - -	70 1 *	879 13 *	15,580 26 1.67	10,120 13 *	6,206 10 *	3,359 2 *	275 4 *
5,000 grams or more										
Live births Infant deaths Infant mortality rate	3,984 18 *	- -	- -	15 1 *	135 3 *	1,860 5 *	921 3 *	592 3 *	420 1 *	41 2 *
Not stated										
Live births Infant deaths Infant mortality rate	361 63 174.52	- -	- - -	- - -	- - -	- -	- -	- - -	- - -	361 63 174.52
Black										
Total										
Live births Infant deaths Infant mortality rate	633,152 8,393 13.26	11,531 4,726 409.85	13,910 682 49.03	15,218 275 18.07	73,182 652 8.91	326,451 1,265 3.88	108,304 327 3.02	47,349 171 3.61	34,128 145 4.25	3,079 148 48.07

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

					Gest	tation				
Birthweight —	Total	<28 Weeks	28-31 Weeks	32-33 Weeks	34-36 Weeks	37-39 Weeks	40 Weeks	41 Weeks	42 Weeks or more	Not Stated
Black										
Less then 2,500 grams										
Live births Infant deaths Infant mortality rate	86,460 6,463 74.75	11,185 4,718 421.81	10,998 665 60.47	10,082 226 22.42	26,278 387 14.73	21,578 288 13.35	2,965 47 15.85	1,259 25 19.86	1,514 28 18.49	601 76 126.46
Less then 500 grams										
Live births Infant deaths Infant mortality rate	2,864 2,444 853.35	2,724 2,339 858.66	89 64 719.10	7 5 *	1 - -	2 1 *	4 4 *	5 5 *	- - -	32 26 812.50
500-749 grams										
Live births Infant deaths Infant mortality rate	4,340 1,945 448.16	3,820 1,781 466.23	409 124 303.18	21 8 *	14 4 *	12 3 *	4 2 *	4 1 *	2 1 *	54 20 370.37
750-999 grams										
Live births Infant deaths Infant mortality rate	4,172 563 134.95	2,635 423 160.53	1,337 121 90.50	84 6 *	52 3 *	21 2 *	6 1 *	3 - -	3 - -	31 7 *
1,000-1,249 grams										
Live births Infant deaths Infant mortality rate	4,378 275 62.81	1,102 109 98.91	2,386 115 48.20	429 20 46.62	224 15 *	122 7 *	40 4 *	16 1 *	27 1 *	32 2 *
1,250-1,499 grams										
Live births Infant deaths Infant mortality rate	4,659 221 47.44	313 30 95.85	2,479 103 41.55	961 33 34.34	583 29 49.74	200 16 *	43 1 *	14 1 *	33 - -	33 7 *
1,500-1,999 grams										
Live births Infant deaths Infant mortality rate	16,632 456 27.42	352 24 68.18	3,083 107 34.71	4,675 104 22.25	5,762 117 20.31	2,006 76 37.89	301 7 *	125 8 *	198 10 *	130 3 *
2,000-2,499 grams										
Live births Infant deaths Infant mortality rate	49,415 558 11.29	239 11 *	1,215 30 24.69	3,905 50 12.80	19,642 219 11.15	19,215 183 9.52	2,567 28 10.91	1,092 9 *	1,251 16 *	289 11 *
2,500-2,999 grams										
Live births Infant deaths Infant mortality rate	154,649 772 4.99	346 8 *	1,254 9 *	2,462 30 12.19	24,631 169 6.86	91,436 397 4.34	19,165 70 3.65	7,613 43 5.65	7,034 37 5.26	708 8 *
3,000-3,499 grams										
Live births Infant deaths Infant mortality rate	241,637 741 3.07	- - -	1,193 4 *	1,888 13 *	15,980 75 4.69	138,868 398 2.87	48,049 137 2.85	20,025 61 3.05	14,639 46 3.14	995 5 *
3,500-3,999 grams										
Live births Infant deaths Infant mortality rate	121,098 287 2.37	- - -	465 4 *	655 3 *	5,201 15 *	61,140 146 2.39	30,243 55 1.82	14,289 33 2.31	8,597 26 3.02	508 4 *

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

					Gest	tation				
Birthweight	Total	<28 Weeks	28-31 Weeks	32-33 Weeks	34-36 Weeks	37-39 Weeks	40 Weeks	41 Weeks	42 Weeks or more	Not Stated
Black										
4,000-4,499 grams										
Live births Infant deaths Infant mortality rate	25,089 62 2.47	- - -	- - -	115 1 *	923 2 *	11,515 33 2.87	6,845 13 *	3,584 5 *	2,003 7 *	104 -
4,500-4,999 grams										
Live births Infant deaths Infant mortality rate	3,623 16 *	- -	- -	14 _ _	147 4 *	1,669 3 *	943 4 *	527 3 *	304 - -	19 2 *
5,000 grams or more										
Live births Infant deaths Infant mortality rate	454 1 *	- - -	- -	2 1 *	22 - -	245 _ _	94 - -	52 - -	37 _ _	2 - -
Not stated										
Live births Infant deaths Infant mortality rate	142 53 373.24	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	142 53 373.24
American Indian ¹										
Total										
Live births Infant deaths Infant mortality rate	44,815 361 8.06	305 103 337.70	617 26 42.14	822 11 *	4,519 48 10.62	22,489 105 4.67	8,340 34 4.08	4,104 19 *	3,307 13 *	312 1 *
Less then 2,500 grams										
Live births Infant deaths Infant mortality rate	3,313 177 53.43	281 103 366.55	394 23 58.38	435 9 *	1,088 20 18.38	868 17 *	105 1 *	48 1 *	65 1 *	29 1 *
Less then 500 grams										
Live births Infant deaths Infant mortality rate	58 46 793.10	56 45 803.57	1 1 *	- -	- -	- - -	- -	- - -	- - -	1 - -
500-749 grams										
Live births Infant deaths Infant mortality rate	91 41 450.55	75 39 520.00	15 2 *	- - -	- -	- -	- -	- -	- -	1 - -
750-999 grams										
Live births Infant deaths Infant mortality rate	109 11 *	67 10 *	31 1 *	5 - -	3 - -	2 - -	- - -	- - -	- - -	1 - -
1,000-1,249 grams										
Live births Infant deaths Infant mortality rate	137 18 *	44 7 *	64 10 *	14 _ _	6 - -	3 1 *	- - -	1 - -	- - -	5 - -
1,250-1,499 grams										
Live births Infant deaths Infant mortality rate	142 10 *	11 _ _	67 4 *	21 1 *	29 3 *	7 1 *	- - -	1 - -	2 - -	4 1 *

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

_					Gest	tation				
Birthweight	Total	<28 Weeks	28-31 Weeks	32-33 Weeks	34-36 Weeks	37-39 Weeks	40 Weeks	41 Weeks	42 Weeks or more	Not Stated
American Indian ¹										
1,500-1,999 grams										
Live births Infant deaths Infant mortality rate	651 20 30.72	13 _ _	146 5 *	188 6 *	191 5 *	85 3 *	7 - -	10 1 *	9 - -	2 - -
2,000-2,499 grams										
Live births Infant deaths Infant mortality rate	2,125 29 13.65	15 1 *	70 _ _	207 2 *	859 12 *	771 12 *	98 1 *	36 - -	54 1 *	15 - -
2,500-2,999 grams										
Live births Infant deaths Infant mortality rate	7,388 53 7.17	24 - -	71 1 *	134 - -	1,466 8 *	4,032 29 7.19	843 8 *	388 3 *	372 3 *	58 - -
3,000-3,499 grams										
Live births Infant deaths Infant mortality rate	16,661 69 4.14	- - -	102 1 *	168 1 *	1,244 15 *	9,227 29 3.14	3,129 14 *	1,444 3 *	1,232 5 *	115 - -
3,500-3,999 grams										
Live births Infant deaths Infant mortality rate	12,781 41 3.21	- - -	50 1 *	64 - -	555 2 *	6,315 18 *	3,049 9 *	1,518 6 *	1,155 4 *	75 - -
4,000-4,499 grams										
Live births Infant deaths Infant mortality rate	3,834 15 *	- - -	- -	16 _ _	129 1 *	1,689 6 *	997 2 *	581 6 *	398 - -	24 - -
4,500-4,999 grams										
Live births Infant deaths Infant mortality rate	721 5 *	- - -	- -	2 - -	32 - -	309 5 *	192 - -	110 _ _	74 - -	2 - -
5,000 grams or more										
Live births Infant deaths Infant mortality rate	108 2 *	- - -	- -	3 1 *	5 1 *	49 - -	25 - -	15 - -	11 _ _	
Not stated										
Live births Infant deaths Infant mortality rate	9 - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	9 - -
Asian or Pacific Islander										
Total										
Live births Infant deaths Infant mortality rate	231,112 1,129 4.89	1,221 524 429.16	2,212 86 38.88	2,986 51 17.08	18,179 102 5.61	127,725 227 1.78	45,425 43 0.95	19,052 38 1.99	11,690 20 1.71	2,622 38 14.49
Less then 2,500 grams										
Live births Infant deaths Infant mortality rate	18,482 816 44.15	1,180 523 443.22	1,682 83 49.35	1,986 44 22.16	6,167 71 11.51	5,867 50 8.52	721 4 *	294 7 *	301 7 *	284 27 95.07

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

_					Gest	ation				
Birthweight	Total	<28 Weeks	28-31 Weeks	32-33 Weeks	34-36 Weeks	37-39 Weeks	40 Weeks	41 Weeks	42 Weeks or more	Not Stated
Asian or Pacific Islander										
Less then 500 grams										
Live births Infant deaths Infant mortality rate	294 250 850.34	274 236 861.31	8 4 *	- - -	- - -	- - -	- - -	1 1 *	- - -	11 9 *
500-749 grams										
Live births Infant deaths Infant mortality rate	457 231 505.47	391 211 539.64	54 11 *	1 - -	1 - -	1 2 *	- -	- - -	- - -	9 6 *
750-999 grams										
Live births Infant deaths Infant mortality rate	513 74 144.25	295 61 206.78	186 10 *	13 1 *	6 - -	4 - -	- - -	- - -	- - -	9 2 *
1,000-1,249 grams										
Live births Infant deaths Infant mortality rate	615 45 73.17	130 10 *	329 19 *	74 4 *	31 3 *	21 2 *	6 - -	6 2 *	8 3 *	10 1 *
1,250-1,499 grams										
Live births Infant deaths Infant mortality rate	806 39 48.39	42 2 *	391 15 *	191 11 *	107 4 *	38 2 *	11 1 *	6 - -	7 1 *	13 2 *
1,500-1,999 grams										
Live births Infant deaths Infant mortality rate	3,363 89 26.46	24 3 *	537 19 *	946 14 *	1,260 28 22.22	429 15 *	53 1 *	19 2 *	33 2 *	62 3 *
2,000-2,499 grams										
Live births Infant deaths Infant mortality rate	12,434 89 7.16	24 _ _	177 4 *	761 13 *	4,762 35 7.35	5,374 28 5.21	651 2 *	262 2 *	253 1 *	170 3 *
2,500-2,999 grams										
Live births Infant deaths Infant mortality rate	52,651 130 2.47	41 1 *	207 1 *	472 5 *	6,449 17 *	33,217 79 2.38	7,126 13 *	2,629 5 *	1,946 5 *	564 3 *
3,000-3,499 grams										
Live births Infant deaths Infant mortality rate	97,517 123 1.26	- - -	226 1 *	333 _ _	4,029 12 *	57,687 73 1.27	20,854 18 *	8,203 15 *	5,139 2 *	1,046 1 *
3,500-3,999 grams										
Live births Infant deaths Infant mortality rate	50,980 43 0.84	- - -	97 1 *	159 2 *	1,260 2 *	25,938 17 *	13,510 7 *	6,117 8 *	3,346 5 *	553 - -
4,000-4,499 grams										
Live births Infant deaths Infant mortality rate	9,969 10 *	- - -	- - -	31 _ _	232 - -	4,395 7 *	2,799 _ _	1,571 2 *	813 _ _	128 1 *

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

					Gest	tation				r more Stated						
Birthweight	Total	<28 Weeks	28-31 Weeks	32-33 Weeks	34-36 Weeks	37-39 Weeks	40 Weeks	41 Weeks	42 Weeks or more							
Asian or Pacific Islander																
4,500-4,999 grams																
Live births Infant deaths Infant mortality rate	1,310 2 *	- -	- -	4 - -	31 _ _	539 1 *	376 - -	216 - -	1	14 - -						
5,000 grams or more																
Live births Infant deaths Infant mortality rate	173 _ _	- - -	- - -	1 - -	11 _ _	82 - -	39 - -	22 - -	15 _ _	3 - -						
Not stated																
Live births Infant deaths Infant mortality rate	30 6 *	- -	- - -	- -	- -	- -	- -	- -	- -	30 6 *						

-/ Quality zero. */Figure does not meet standard of reliability or precision; based on fewer than 20 death in the numerator. 1/ Includes Aleuts and Eskimos.

Live births, infant deaths, and infant mortality rates by birthweight, race of mother, and age at death: United states, 2005 period 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]

Pirthuoight and race of mother	Live		Total	Early	Late	Post-
Birthweight and race of mother	Births	Infant	Neonatal	Neonatal	Neonatal	Neonatal
All races						
Total (all birthweights)	4,138,573	28,384	18,782	15,013	3,769	9,602
Rate		6.86	4.54	3.63	0.91	2.32
Less than 2,500 grams	340,152	19,521	15,701	13,202	2,499	3,820
Rate		57.39	46.16	38.81	7.35	11.23
Less than 500 grams	7,274	6,232	6,097	5,915	183	134
Rate		856.75	838.19	813.17	25.16	18.42
500-749 grams	11,754	5,502	4,648	3,817	830	854
Rate		468.10	395.44	324.74	70.61	72.66
750-999 grams	12,526	1,884	1,373	904	469	510
Rate		150.41	109.61	72.17	37.44	40.72
1,000-1,249 grams	14,352	1,023	738	499	239	285
Rate		71.28	51.42	34.77	16.65	19.86
1,250-1,499 grams	17,123	799	548	395	153	251
Rate		46.66	32.00	23.07	8.94	14.66
1,500-1,999 grams	66,584	1,789	1,134	880	254	655
Rate		26.87	17.03	13.22	3.81	9.84
2,000-2,499 grams	210,539	2,293	1,163	792	371	1,130
Rate		10.89	5.52	3.76	1.76	5.37
2,500-2,999 grams	748,527	3,136	1,224	754	470	1,912
Rate		4.19	1.64	1.01	0.63	2.55
3,000-3,499 grams	1,597,746	3,437	1,049	551	498	2,388
Rate		2.15	0.66	0.34	0.31	1.49
3,500-3,999 grams	1,115,475	1,635	500	268	232	1,135
Rate		1.47	0.45	0.24	0.21	1.02
4,000-4,499 grams	289,269	418	134	76	57	284
Rate		1.45	0.46	0.26	0.20	0.98
4,500-4,999 grams	42,143	93	43	33	9	50
Rate		2.21	1.02	0.78	*	1.19
5,000 grams or more Rate	4,719	21 4.45	13	11	2 *	8 *
Not statedRate	542	121 223.25	117 215.87	116 214.02	1 *	4 *

Live births, infant deaths, and infant mortality rates by birthweight, race of mother, and age at death: United states, 2005 period 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]

Pirthuoight and roce of mother	Live		Total	Early	Late	Post-
Birthweight and race of mother	Births	Infant	Neonatal	Neonatal	Neonatal	Neonatal
White						
Total (all birthweights)	3,229,494	18,500	12,173	9,660	2,512	6,328
Rate		5.73	3.77	2.99	0.78	1.96
Less than 2,500 grams	231,897	12,066	9,829	8,278	1,550	2,237
Rate		52.03	42.39	35.70	6.68	9.65
Less than 500 gramsRate	4,058	3,491 860.28	3,431 845.49	3,335 821.83	96 23.66	60 14.79
500-749 grams	6,866	3,285	2,852	2,380	472	433
Rate		478.44	415.38	346.64	68.74	63.06
750-999 grams	7,732	1,235	953	646	307	282
Rate		159.73	123.25	83.55	39.71	36.47
1,000-1,249 grams	9,222	686	504	363	141	181
Rate		74.39	54.65	39.36	15.29	19.63
1,250-1,499 grams	11,516	529	385	276	109	144
Rate		45.94	33.43	23.97	9.47	12.50
1,500-1,999 grams	45,938	1,224	823	662	161	401
Rate		26.64	17.92	14.41	3.50	8.73
2,000-2,499 grams	146,565	1,617	880	616	265	736
Rate		11.03	6.00	4.20	1.81	5.02
2,500-2,999 grams	533,839	2,182	913	570	342	1,269
Rate		4.09	1.71	1.07	0.64	2.38
3,000-3,499 grams	1,241,931	2,505	817	441	375	1,688
Rate		2.02	0.66	0.36	0.30	1.36
3,500-3,999 grams	930,616	1,266	405	215	190	861
Rate		1.36	0.44	0.23	0.20	0.93
4,000-4,499 grams	250,377	331	104	58	46	227
Rate		1.32	0.42	0.23	0.18	0.91
4,500-4,999 grams Rate	36,489	70 1.92	33 0.90	26 0.71	7	36 0.99
5,000 grams or more Rate	3,984	18 *	11	10 *	1 *	7
Not statedRate	361	63 174.52	61 168.98	61 168.98	-	2

Live births, infant deaths, and infant mortality rates by birthweight, race of mother, and age at death: United states, 2005 period 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]

Distright and sage of methors	Live		Total	Early	Late	Post-
Birthweight and race of mother	Births	Infant	Neonatal	Neonatal	Neonatal	Neonatal
Black						
Total (all birthweights) Rate	633,152	8,393 13.26	5,649 8.92	4,603 7.27	1,047 1.65	2,743 4.33
Less than 2,500 gramsRate	86,460	6,463 74.75	5,070 58.64	4,266 49.34	803 9.29	1,393 16.11
Less than 500 grams Rate	2,864	2,444 853.35	2,376 829.61	2,296 801.68	80 27.93	69 24.09
500-749 gramsRate	4,340	1,945 448.16	1,567 361.06	1,254 288.94	313 72.12	378 87.10
750-999 gramsRate	4,172	563 134.95	357 85.57	218 52.25	138 33.08	207 49.62
1,000-1,249 grams Rate	4,378	275 62.81	184 42.03	107 24.44	77 17.59	91 20.79
1,250-1,499 grams Rate	4,659	221 47.44	129 27.69	97 20.82	32 6.87	92 19.75
1,500-1,999 grams Rate	16,632	456 27.42	238 14.31	160 9.62	79 4.75	218 13.11
2,000-2,499 grams Rate	49,415	558 11.29	219 4.43	134 2.71	85 1.72	339 6.86
2,500-2,999 grams Rate	154,649	772 4.99	248 1.60	143 0.92	105 0.68	524 3.39
3,000-3,499 grams Rate	241,637	741 3.07	175 0.72	81 0.34	94 0.39	566 2.34
3,500-3,999 grams Rate	121,098	287 2.37	75 0.62	40 0.33	34 0.28	212 1.75
4,000-4,499 grams Rate	25,089	62 2.47	23 0.92	15 *	8	38 1.51
4,500-4,999 grams Rate	3,623	16 *	8	б *	2 *	8 *
5,000 grams or moreRate	454	1 *	-	-		1
Not statedRate	142	53 373.24	52 366.20	51 359.15	1 *	1 *

Live births, infant deaths, and infant mortality rates by birthweight, race of mother, and age at death: United states, 2005 period 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-
Birthweight and race of mother	Births	Infant	Neonatal	Neonatal	Neonatal	Neonatal
American Indian ¹						
Total (all birthweights) Rate	44,815	361 8.06	181 4.04	132 2.95	49 1.09	180 4.02
Less than 2,500 gramsRate	3,313	177 53.43	135 40.75	107 32.30	28 8.45	41 12.38
Less than 500 gramsRate	58	46 793.10	46 793.10	46 793.10	-	-
500-749 grams Rate	91	41 450.55	35 384.62	30 329.67	5 *	6 *
750-999 grams Rate	109	11 *	б *	4 *	2 *	5 *
1,000-1,249 grams Rate	137	18 *	14 *	7 *	7	4 *
1,250-1,499 grams Rate	142	10 *	5	3	2 *	5 *
1,500-1,999 grams Rate	651	20 30.72	15 *	10 *	5	5 *
2,000-2,499 grams Rate	2,125	29 13.65	13 *	б *	7	16 *
2,500-2,999 grams Rate	7,388	53 7.17	14 *	9 *	5	38 5.14
3,000-3,499 grams Rate	16,661	69 4.14	16 *	8 *	8	53 3.18
3,500-3,999 grams Rate	12,781	41 3.21	9 *	5	4 *	31 2.43
4,000-4,499 grams Rate	3,834	15 *	4 *	2 *	2 *	11
4,500-4,999 grams Rate	721	5 *	-	-	-	5
5,000 grams or moreRate	108	2 *	2 *	1 *	1 *	-
Not statedRate	9	-	- -	- -		-

Live births, infant deaths, and infant mortality rates by birthweight, race of mother, and age at death: United states, 2005 period 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]

Distance when and some of mothers	Live		Total	Early	Late	Post-
Birthweight and race of mother	Births	Infant	Neonatal	Neonatal	Neonatal	Neonatal
Asian or Pacific Islander						
Total (all birthweights) Rate	231,112	1,129 4.89	779 3.37	618 2.67	161 0.70	350 1.51
Less than 2,500 gramsRate	18,482	816 44.15	668 36.14	551 29.81	117 6.33	148 8.01
Less than 500 gramsRate	294	250 850.34	244 829.93	237 806.12	7 *	6 *
500-749 grams Rate	457	231 505.47	193 422.32	153 334.79	40 87.53	37 80.96
750-999 grams Rate	513	74 144.25	58 113.06	36 70.18	22 42.88	16 *
1,000-1,249 grams Rate	615	45 73.17	36 58.54	21 34.15	14	9 *
1,250-1,499 grams Rate	806	39 48.39	29 35.98	18 *	10 *	10 *
1,500-1,999 grams Rate	3,363	89 26.46	57 16.95	48 14.27	9	31 9.22
2,000-2,499 grams Rate	12,434	89 7.16	51 4.10	37 2.98	14	38 3.06
2,500-2,999 grams Rate	52,651	130 2.47	50 0.95	32 0.61	18 *	80 1.52
3,000-3,499 grams Rate	97,517	123 1.26	42 0.43	20 0.21	21 0.22	81 0.83
3,500-3,999 grams Rate	50,980	43 0.84	12	8 *	4 *	30 0.59
4,000-4,499 grams Rate	9,969	10 *	2 *	1 *	1	8
4,500-4,999 grams Rate	1,310	2 *	1 *	1 *	-	1
5,000 grams or moreRate	173	- -	-	- -	-	-
Not statedRate	30	б *	5	5 *	-	1

See footnotes at end of table.

*/ Figure does not meet standard of reliability or precision; based on fewer than 20 death in the numerator

-/ Quantity zero 1/ Includes Aleuts and Eskimos

[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]

	Live		Total	Early	Late	Post-
Cause of death, birthweight, and race of mother	Births	Infant		-	Neonatal	
All races						
All birthweights						
All Causes	138,573	28,384 685.8	18,782 453.8	15,013 362.8	3,769 91.1	
Congenital malformations (Q00-Q99)		5,571 134.6	3,916 94.6	3,001 72.5	915 22.1	
Short gestation and low birthweight nec (P07)		4,698 113.5	4,583 110.7	4,478 108.2	105 2.5	
Sudden infant death syndrome (R95)		2,234 54.0	200 4.8	38 0.9	161 3.9	
Maternal complications of pregnancy (PO1)		1,769 42.7	1,748 42.2	1,719 41.5	29 0.7	
Complications of placenta, cord, membranes (P02)		1,095 26.5	1,075 26.0	1,041 25.2	33 0.8	
Accidents (unintentional injures) (V01-X59)		1,083 26.2	122 2.9	26 0.6	96 2.3	
Respiratory distress of newborn (P22)		861 20.8	834 20.2	695 16.8	139 3.4	
Bacterial sepsis of newborn (P36)		839 20.3	799 19.3	327 7.9	471 11.4	
Neonatal hemorrhage (P50-P52, P54)		668 16.1	655 15.8	452 10.9	203 4.9	
Diseases of the circulatory system (IOO-I99)		520 12.6	118 2.9	55 1.3	62 1.5	
All other causes		9,046 218.6	4,732 114.3	3,180 76.8	1,552 37.5	
Less then 2,500 grams						
All Causes	340,152	19,521 5,738.9	15,701 4,615.9	13,202 3,881.2	2,499 734.7	3,820 1,123.0
Congenital malformations (Q00-Q99)		3,358 987.2	2,618 769.7	2,190 643.8	427 125.5	
Short gestation and low birthweight nec (P07)		4,602 1,352.9	4,490 1,320.0	4,385 1,289.1	105 30.9	
Sudden infant death syndrome (R95)		443 130.2	30 8.8	8 *	22 6.5	
Maternal complications of pregnancy (PO1)		1,701 500.1	1,683 494.8	1,655 486.5	28 8.2	
Complications of placenta, cord, membranes (PO2)		1,000 294.0	984 289.3	961 282.5	22 6.5	
Accidents (unintentional injures) (V01-X59)		199 58.5	28 8.2	9 *	19 *	
Respiratory distress of newborn (P22)		844 248.1	820 241.1	684 201.1	136 40.0	
Bacterial sepsis of newborn (P36)		745 219.0	708 208.1	281 82.6	427 125.5	
Neonatal hemorrhage (P50-P52, P54)		606 178.2	596 175.2	416 122.3	180 52.9	10
See footnotes at end of table.						

[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						
Diseases of the circulatory system (IOO-I99)		266 78.2	68 20.0	34 10.0	34 10.0	
All other causes		5,758 1,692.8	3,676 1,080.7	2,579 758.2	1,097 322.5	
2,500 grams or more						
All Causes	797,879	8,741 230.2	2,963 78.0	1,694 44.6	1,269 33.4	
Congenital malformations (Q00-Q99)		2,208 58.1	1,295 34.1	806 21.2	488 12.8	
Short gestation and low birthweight nec (P07)		43 1.1	40 1.1	40 1.1	-	. 3
Sudden infant death syndrome (R95)		1,788 47.1	169 4.4	30 0.8	139 3.7	
Maternal complications of pregnancy (PO1)		46 1.2	43 1.1	42 1.1	1	
Complications of placenta, cord, membranes (PO2)		85 2.2	81 2.1	70 1.8	11 *	
Accidents (unintentional injures) (V01-X59)		883 23.2	94 2.5	17 *	77 2.0	
Respiratory distress of newborn (P22)		15 *	12 *	9 *	3	
Bacterial sepsis of newborn (P36)		94 2.5	90 2.4	46 1.2	44 1.2	
Neonatal hemorrhage (P50-P52, P54)		62 1.6	59 1.6	36 0.9	23 0.6	
Diseases of the circulatory system (IOO-I99)		254 6.7	50 1.3	21 0.6	28 0.7	
All other causes		3,261 85.9	1,030 27.1	576 15.2	454 12.0	
Not stated birthweight						
All Causes	542	121 22,324.7	117 21,586.7	116 21,402.2	1	
Congenital malformations (Q00-Q99)		4 *	4 *	4 *	-	
Short gestation and low birthweight nec (P07)		53 9,778.6	53 9,778.6	53 9,778.6		· -
Sudden infant death syndrome (R95)		2 *	-	-	-	. 2
Maternal complications of pregnancy (P01)		22 4,059.0	22 4,059.0	22 4,059.0	-	
Complications of placenta, cord, membranes (PO2)		10 *	10 *	10	-	· -
Accidents (unintentional injures) (V01-X59)		1 *	-	-	-	· 1
Respiratory distress of newborn (P22)		2 *	2	2 *	-	
See footnotes at end of table.						

[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]

I Cause of death, birthweight, and race of mother	Live		Total	Early	Late	Post-
	irths :	Infant	Neonatal	Neonatal	Neonatal 1	Neonatal
All races						
Bacterial sepsis of newborn (P36)		-	-	-	-	-
Neonatal hemorrhage (P50-P52, P54)		1 *	1 *	1	-	-
Diseases of the circulatory system (IOO-I99)		-	-	-	-	-
All other causes	4,	26 797.0	25 4,612.5	24 4,428.0	1 *	1 *
White						
All birthweights						
All Causes	29,494	18,500 572.8	12,173 376.9	9,660 299.1	2,512 77.8	6,328 195.9
Congenital malformations (Q00-Q99)		4,177 129.3	2,983 92.4	2,289 70.9	694 21.5	1,194 37.0
Short gestation and low birthweight nec (P07)		2,616 81.0	2,560 79.3	2,496 77.3	65 2.0	55 1.7
Sudden infant death syndrome (R95)		1,532 47.4	145 4.5	28 0.9	117 3.6	1,387 42.9
Maternal complications of pregnancy (P01)		1,037 32.1	1,025 31.7	1,005 31.1	20 0.6	12 *
Complications of placenta, cord, membranes (PO2)		748 23.2	737 22.8	710 22.0	27 0.8	11 *
Accidents (unintentional injures) (V01-X59)		742 23.0	80 2.5	19 *	61 1.9	662 20.5
Respiratory distress of newborn (P22)		526 16.3	512 15.9	431 13.3	81 2.5	14 *
Bacterial sepsis of newborn (P36)		525 16.3	503 15.6	223 6.9	280 8.7	22 0.7
Neonatal hemorrhage (P50-P52, P54)		477 14.8	467 14.5	324 10.0	143 4.4	10 *
Diseases of the circulatory system (IOO-I99)		329 10.2	76 2.4	38 1.2	38 1.2	253 7.8
All other causes		5,790 179.3	3,083 95.5	2,098 65.0	986 30.5	2,707 83.8
Less then 2,500 grams						
All Causes 22		12,066 ,203.2	9,829 4,238.5	8,278 3,569.7	1,550 668.4	2,237 964.7
Congenital malformations (Q00-Q99)	1,	2,462 ,061.7	1,943 837.9	1,644 708.9	299 128.9	519 223.8
Short gestation and low birthweight nec (P07)	1,	2,559 ,103.5	2,506 1,080.7	2,441 1,052.6	65 28.0	53 22.9
Sudden infant death syndrome (R95)		255 110.0	19 *	б *	13	
Maternal complications of pregnancy (P01)		998 430.4	987 425.6	967 417.0	19 *	11
One facture at and of table						

[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-
	irths	Infant	Neonatal	Neonatal	Neonatal	Neonatal
White						
Complications of placenta, cord, membranes (P02)		676 291.5	667 287.6	649 279.9		
Accidents (unintentional injures) (V01-X59)		108 46.6	18 *	6 *	12	
Respiratory distress of newborn (P22)		516 222.5	503 216.9	424 182.8		
Bacterial sepsis of newborn (P36)		454 195.8	434 187.2	186 80.2		
Neonatal hemorrhage (P50-P52, P54)		436 188.0	427 184.1	301 129.8		
Diseases of the circulatory system (IOO-I99)		150 64.7	39 16.8	20 8.6	18	
All other causes		3,451 1,488.2	2,286 985.8	1,634 704.6		
2,500 grams or more						
All Causes2,9	97,236	6,372 212.6	2,283 76.2	1,321 44.1		
Congenital malformations (Q00-Q99)		1,712 57.1	1,037 34.6	642 21.4		
Short gestation and low birthweight nec (P07)		27 0.9	25 0.8	25 0.8		4
Sudden infant death syndrome (R95)		1,275 42.5	126 4.2	22 0.7		
Maternal complications of pregnancy (PO1)		32 1.1	30 1.0	29 1.0]	
Complications of placenta, cord, membranes (P02)		65 2.2	63 2.1	54 1.8		
Accidents (unintentional injures) (V01-X59)		633 21.1	62 2.1	13	49 1.6	
Respiratory distress of newborn (P22)		9 *	7 *	б *]	
Bacterial sepsis of newborn (P36)		71 2.4	69 2.3	37 1.2		
Neonatal hemorrhage (P50-P52, P54)		40 1.3	39 1.3	22 0.7		
Diseases of the circulatory system (IOO-I99)		179 6.0	38 1.3	17	20 0.7	
All other causes		2,328 77.7	786 26.2	453 15.1		
Not stated birthweight						
All Causes	361	63 17,451.5	61 16,897.5	61 16,897.5		- 2
Congenital malformations (Q00-Q99)		3 *	3	3	-	
Short gestation and low birthweight nec (P07)		29 8,033.2	29 8,033.2	29 8,033.2	-	

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

Cause of death, birthweight, and race of mother	Live		Total	Early	Late	Post-
	Births	Infant	Neonatal	Neonatal	Neonatal	Neonatal
White						
Sudden infant death syndrome (R95)		1 *	-	-		1 *
Maternal complications of pregnancy (P01)		8 *	8 *	8 *		· -
Complications of placenta, cord, membranes (PO2)		7 *	7 *	7		
Accidents (unintentional injures) (V01-X59)		1 *	- -	-		1
Respiratory distress of newborn (P22)		1 *	1 *	1		-
Bacterial sepsis of newborn (P36)		-	-	-		
Neonatal hemorrhage (P50-P52, P54)		1 *	1 *	1		. <u>-</u>
Diseases of the circulatory system (IOO-I99)		-	-	-		. <u>-</u>
All other causes		11 *	11 *	11		
Black						
All birthweights						
All Causes	633,152	8,393 1,325.6	5,649 892.2	4,603 727.0	1,04 165.4	
Congenital malformations (Q00-Q99)		1,062 167.7	717 113.2	540 85.3	17 28.0	
Short gestation and low birthweight nec (P07)		1,859 293.6	1,807 285.4	1,771 279.7	30 5.1	
Sudden infant death syndrome (R95)		597 94.3	47 7.4	8 *	39 6.2	
Maternal complications of pregnancy (P01)		656 103.6	648 102.3	639 100.9		8
Complications of placenta, cord, membranes (P02)		303 47.9	294 46.4	289 45.6	!	5 9 *
Accidents (unintentional injures) (V01-X59)		291 46.0	38 6.0	7 *	33	
Respiratory distress of newborn (P22)		295 46.6	283 44.7	233 36.8	49 7.7	
Bacterial sepsis of newborn (P36)		265 41.9	246 38.9	88 13.9	158 25.0	
Neonatal hemorrhage (P50-P52, P54)		150 23.7	148 23.4	103 16.3	4! 7.1	
Diseases of the circulatory system (IOO-I99)		153 24.2	31 4.9	13 *	18	
All other causes		2,762 436.2	1,389 219.4	911 143.9	478 75.!	
Less then 2,500 grams						
All Causes	86,460	6,463 7,475.1	5,070 5,864.0	4,266 4,934.1		1,393 1,611.1
See footnotes at end of table.						

[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)		692 800.4	521 602.6	417 482.3	104 120.3	
Short gestation and low birthweight nec (P07)		1,823 2,108.5	1,773 2,050.7	1,736 2,007.9	36 41.6	
Sudden infant death syndrome (R95)		169 195.5	9 *	2	7	
Maternal complications of pregnancy (P01)		628 726.3	621 718.3	612 707.8	ç	
Complications of placenta, cord, membranes (P02)		286 330.8	279 322.7	275 318.1	4	1 7 * *
Accidents (unintentional injures) (V01-X59)		87 100.6	10	3	7	
Respiratory distress of newborn (P22)		288 333.1	277 320.4	229 264.9	47 54.4	
Bacterial sepsis of newborn (P36)		247 285.7	231 267.2	80 92.5	151 174.6	
Neonatal hemorrhage (P50-P52, P54)		134 155.0	134 155.0	93 107.6		
Diseases of the circulatory system (IOO-I99)		94 108.7	22 25.4	9 *	13	3 72
All other causes		2,014 2,329.4	1,192 1,378.7	810 936.8	382 441.8	822
2,500 grams or more		,	,			
All Causes	546,550	1,878 343.6	528 96.6	285 52.1	243 44.5	
Congenital malformations (Q00-Q99)		369 67.5	195 35.7	123 22.5	73	173
Short gestation and low birthweight nec (P07)		13	12	12		- 1
Sudden infant death syndrome (R95)		428 78.3	38 7.0	б *	32 5.9	
Maternal complications of pregnancy (P01)		14	12	12		- 2
Complications of placenta, cord, membranes (P02)		15 *	13	12	1	
Accidents (unintentional injures) (V01-X59)		204 37.3	28 5.1	4	24 4.4	176
Respiratory distress of newborn (P22)		6 *	5.1	3	2	2 1
Bacterial sepsis of newborn (P36)		17	15	8		2
Neonatal hemorrhage (P50-P52, P54)		16	14	10	4	
Diseases of the circulatory system (IOO-I99)		59 10.8	9	4	Ę	
All other causes		735 134.5	185 33.8	91 16.6	95	5 550
See footnotes at end of table		10110	55.0	10.0	±/	

[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	L
Black							
Not stated birthweight							
All Causes	142	53 37,323.9	52 36,619.7	51 35,915.5		1 *	1 *
Congenital malformations (Q00-Q99)		1 *	1 *	1 *		-	-
Short gestation and low birthweight nec (P07)		22 15,493.0	22 15,493.0	22 15,493.0		-	-
Sudden infant death syndrome (R95)		-	- -	-		-	-
Maternal complications of pregnancy (P01)		14 *	14 *	14		-	-
Complications of placenta, cord, membranes (PO2)		2 *	2 *	2 *		-	-
Accidents (unintentional injures) (V01-X59)		-	- -	-		-	-
Respiratory distress of newborn (P22)		1 *	1 *	1		-	-
Bacterial sepsis of newborn (P36)		-	- -	-		-	-
Neonatal hemorrhage (P50-P52, P54)		-	- -	-		-	-
Diseases of the circulatory system (IOO-I99)		-	- -	-		-	-
All other causes		12 *	11 *	10 *		1 *	1 *
American Indian ¹							
All birthweights							
All Causes	44,815	361 805.5	181 403.9	132 294.5			
Congenital malformations (Q00-Q99)		73 162.9	45 100.4	33 73.6		1 2 * 62.	28 . 5
Short gestation and low birthweight nec (P07)		44 98.2	40 89.3	40 89.3		-	4 *
Sudden infant death syndrome (R95)		50 111.6	4 *	1		3 4 * 102.	16 .6
Maternal complications of pregnancy (P01)		7 *	7 *	7		-	-
Complications of placenta, cord, membranes (PO2)		9 *	9 *	8 *		1	-
Accidents (unintentional injures) (V01-X59)		23 51.3	1 *	-		1 2 * 49.	22
Respiratory distress of newborn (P22)		6 *	5 *	3		2	1 *
Bacterial sepsis of newborn (P36)		9 *	9 *	2 *		7	-

[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 M	Veonatal
American Indian ¹						
Neonatal hemorrhage (P50-P52, P54)		5 *	4 *	3 *		1 *
Diseases of the circulatory system (IOO-I99)		6 *	2 *	1	1 *	4 *
All other causes		128 285.6	54 120.5	33 73.6		74 165.1
Less then 2,500 grams						
All Causes	3,313	177 5,342.6	135 4,074.9	107 3,229.7		41 1,237.5
Congenital malformations (Q00-Q99)		34 1,026.3	25 754.6	21 633.9		9 *
Short gestation and low birthweight nec (P07)		44 1,328.1	40 1,207.4	40 1,207.4		4 *
Sudden infant death syndrome (R95)		8 *	1 *	-	1 *	7 *
Maternal complications of pregnancy (PO1)		7 *	7 *	7	-	-
Complications of placenta, cord, membranes (PO2)		6 *	6 *	6 *	-	-
Accidents (unintentional injures) (V01-X59)		2 *	-	-	-	2 *
Respiratory distress of newborn (P22)		6 *	5	3	2	1 *
Bacterial sepsis of newborn (P36)		7 *	7	1	6 *	-
Neonatal hemorrhage (P50-P52, P54)		5 *	4 *	3	1	1
Diseases of the circulatory system (IOO-I99)		4 *	2	1	1	2 *
All other causes		52 1,569.6	37 1,116.8	24 724.4		15 *
2,500 grams or more						
All Causes	41,493	184 443.4	45 108.5	25 60.3		139 335.0
Congenital malformations (Q00-Q99)		38 91.6	19 *	12		19 *
Short gestation and low birthweight nec (P07)		-	-	-		-
Sudden infant death syndrome (R95)		42 101.2	3 *	1		39 94.0
Maternal complications of pregnancy (PO1)		- -	- -	-	-	-
Complications of placenta, cord, membranes (PO2)		3	3	2	1	-
Accidents (unintentional injures) (V01-X59)		21 50.6	1	-	1	20 48.2
See footnotes at end of table.						

[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
American Indian ¹						
Respiratory distress of newborn (P22)		-	-	-	-	-
Bacterial sepsis of newborn (P36)		2 *	2 *	1	1	-
Neonatal hemorrhage (P50-P52, P54)		-	-	-	-	-
Diseases of the circulatory system (IOO-I99)		2 *	-	-	-	2 *
All other causes		76 183.2	17 *	9	8	59 142.2
Not stated birthweight						
All Causes	9	-	-	-	-	-
Congenital malformations (Q00-Q99)		-	-	-	-	-
Short gestation and low birthweight nec (P07)		-	- -	-	-	-
Sudden infant death syndrome (R95)		-	- -	-	-	-
Maternal complications of pregnancy (PO1)		-	- -	-	-	-
Complications of placenta, cord, membranes (PO2)		-	- -	-	-	-
Accidents (unintentional injures) (V01-X59)		-	- -	-	-	-
Respiratory distress of newborn (P22)		-	- -	-	-	-
Bacterial sepsis of newborn (P36)		-	-	-	-	-
Neonatal hemorrhage (P50-P52, P54)		-	- -	-	-	-
Diseases of the circulatory system (IOO-I99)		-	- -	-	-	-
All other causes		- -	-	-	-	-
Asian or Pacific Islander						
All birthweights						
All Causes	231,112	1,129 488.5	779 337.1	618 267.4		
Congenital malformations (Q00-Q99)		259 112.1	171 74.0	138 59.7		
Short gestation and low birthweight nec (P07)		179 77.5	175 75.7	171 74.0		
Sudden infant death syndrome (R95)		55 23.8	3	1	2	
See footnotes at end of table.						

[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]

	Live		Total	Early	Late	Post-
Cause of death, birthweight, and race of mother	Births	Infant	Neonatal	Neonatal	Neonatal	Neonatal
Asian or Pacific Islander						
Maternal complications of pregnancy (P01)		68 29.4	68 29.4	68 29.4		-
Complications of placenta, cord, membranes (PO2)		34 14.7	34 14.7	34 14.7		-
Accidents (unintentional injures) (V01-X59)		26 11.2	3 *	-	3	
Respiratory distress of newborn (P22)		35 15.1	35 15.1	28 12.1		
Bacterial sepsis of newborn (P36)		40 17.3	40 17.3	14	26 11.2	
Neonatal hemorrhage (P50-P52, P54)		36 15.6	36 15.6	23 10.0		
Diseases of the circulatory system (IOO-I99)		31 13.4	8 *	3	5	
All other causes		365 157.9	205 88.7	138 59.7		
Less then 2,500 grams						
All Causes	18,482	816 4,415.1	668 3,614.3	551 2,981.3		
Congenital malformations (Q00-Q99)		170 919.8	128 692.6	108 584.4		
Short gestation and low birthweight nec (P07)		175 946.9	171 925.2	167 903.6		
Sudden infant death syndrome (R95)		10 *	1 *	-	1	
Maternal complications of pregnancy (P01)		68 367.9	68 367.9	68 367.9		-
Complications of placenta, cord, membranes (PO2)		31 167.7	31 167.7	31 167.7		-
Accidents (unintentional injures) (V01-X59)		2 *	-	-	-	2 *
Respiratory distress of newborn (P22)		35 189.4	35 189.4	28 151.5	7	-
Bacterial sepsis of newborn (P36)		36 194.8	36 194.8	14	22 119.0	
Neonatal hemorrhage (P50-P52, P54)		30 162.3	30 162.3	19 *	11	
Diseases of the circulatory system (IOO-I99)		17 *	5 *	3	2	
All other causes		241 1,304.0	161 871.1	112 606.0		
2,500 grams or more						
All Causes	212,600	307 144.4	106 49.9	62 29.2		
Congenital malformations (Q00-Q99)		89 41.9	43 20.2	30 14.1		
One frathered at and of table						

[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
Asian or Pacific Islander						
Short gestation and low birthweight nec (P07)		3 *	3 *	3 *		
Sudden infant death syndrome (R95)		43 20.2	2 *	1 *		1 41 * 19.3
Maternal complications of pregnancy (PO1)		-	-	-		
Complications of placenta, cord, membranes (PO2)		2 *	2 *	2 *		
Accidents (unintentional injures) (V01-X59)		24 11.3	3 *	-		3 21 * 9.9
Respiratory distress of newborn (P22)		-	-	-		
Bacterial sepsis of newborn (P36)		4 *	4 *	-		4 –
Neonatal hemorrhage (P50-P52, P54)		5 *	5 *	3		2 –
Diseases of the circulatory system (IOO-I99)		14 *	3	-		3 11 * *
All other causes		122 57.4	41 19.3	23 10.8		8 80 * 37.6
Not stated birthweight						
All Causes	. 30	6 *	5 *	5 *		- 1 - *
Congenital malformations (Q00-Q99)		-	-	-		
Short gestation and low birthweight nec (P07)		1 *	1 *	1 *		
Sudden infant death syndrome (R95)		1 *	- -	-		- 1
Maternal complications of pregnancy (PO1)		-	-	-		
Complications of placenta, cord, membranes (PO2)		1 *	1 *	1		
Accidents (unintentional injures) (V01-X59)		- -	- -	-		
Respiratory distress of newborn (P22)		- -	- -	-		
Bacterial sepsis of newborn (P36)		-	- -	-		
Neonatal hemorrhage (P50-P52, P54)		-	-	-		
Diseases of the circulatory system (IOO-I99)		-	-	-		
All other causes		3	3	3		

*/Figure does not meet standard of reliability or precision; based on fewer than 20 death in the numerator.

-/ Quality zero.
1/ Includes Aleuts and Eskimos.

State and race of child 1/	Infant	Total neonatal	Early neonatal	Late neonatal	Postneonatal	
United States /2						
Total	365	275	244	31	90	
White	222	173	156	17	49	
Black	124	89	76	13	35	
Alabama						
Total	-	-	-	-	-	
White	-	-	-	-	-	
Black	-	-	-	-	-	
Alaska						
Total	-	-	-	-	-	
White	-	-	-	-	-	
Black	-	-	-	-	-	
Arizona		0	2	-	~	
Total	14	8	3	5	6	
White	12	7	3	4	5	
Black	1	-	-	-	1	
Arkansas						
Total	-	-	-	-	-	
White	-	-	-	-	-	
Black	-	-	-	-	-	
California	105	0.0		<i>,</i>	0.5	
Total	107	80	74	6	27	
White	76	57	51	6	19	
Black	17	15	15	-	2	
Colorado	1				-	
Total	1	-	-	-	1	
White	- 1	-	-	=	- 1	
Black	T	-	-	-	Ţ	
Connecticut	_		_	_	_	
Total	-	-	-	-		
White		-	-	=	-	
Black	-	-	-	-	-	
Delaware Total	_		_		_	
White	_	-	-	-	-	
Black	-	-	-	-	-	
Dist of Columbia						
Total	_	_	_	_	_	
White	_	_	_	_	_	
Black	-	-	-	-	-	
Florida						
Total	3	-	-	_	3	
White	2	-	-	_	2	
Black	1	-	-	-	1	
Georgia						
Total	2	-	-	-	2	
White	-	-	-	-	-	
Black	2	-	-	-	2	
Hawaii						
Total	-	-	-	-	-	
White	-	-	-	-	-	
Black	-	-	-	-	-	

tate and race of child 1/	Infant	Total neonatal	Early neonatal	Late neonatal	Postneonatal
daho					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
llinois					
	22	17	15	2	5
Total					
White	10	9	9	-	1
Black	12	8	6	2	4
ndiana					
Total	2	1	1	-	1
White	-	_	_	_	_
Black	2	1	1	_	1
Brack	2	1	1		±
owa					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
ansas					
Total	-	-	_	-	_
					-
White	-	-	-	-	-
Black	-	-	-	-	-
entucky					
Total	2	2	2	-	-
White	2	2	2	-	_
Black	-	_	_	-	-
ouisiana					_
Total	38	29	18	11	9
White	9	7	5	2	2
Black	29	22	13	9	7
aine					
Total	-	_	_	_	_
White	_	_	_	_	_
Black	_			_	_
Black	-	-	-	-	-
aryland					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
assachusetts					
Total	1	_		_	1
White	1		-	-	
		=	=	-	1
Black	-	-	-	-	-
chigan					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
	1	_	_	_	1
Total	1	-	-	-	1
Total White	-	-	-	-	-
innesota Total White Black		- - -	- - -		
Total White Black	-		- - -		-
Total White Black ssissippi	-		- - -		-
White	_ 1			-	- 1

State and race of child 1/	Infant	Total neonatal	Early neonatal	Late neonatal	Postneonatal
Missouri					
Total	2	-	-	-	2
White	2	-	-	-	2
Black	-	-	-	-	-
Iontana					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
ebraska					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
evada					
Total	7	1	1	-	6
White	4	1	1	-	3
Black	3	-	-	-	3
lew Hampshire					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
lew Jersey					
Total	4	4	4	-	-
White	4	4	4	-	-
Black	-	-	-	-	-
New Mexico					
Total	1	1	1	_	-
White	1	1	1	-	-
Black	_	_	-	-	-
lew York					
Total	8	6	6	-	2
White	7	6	6	_	1
Black	1	_	_	-	1
	-				-
New York City	-	-	-		
Total	2	2	2	-	-
White	1	1	1	-	-
Black	1	1	1	-	-
North Carolina	-	-	_		
Total	2	1	1	-	1
White Black	2	1	1 -	-	1 -
North Dakota					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
Dhio	24	0.4	20	0	10
mat al	34	24	22	2	10
Total		14	12	2	5
White	19	1.0		-	5
	19	10	10		5
White Black klahoma	15				5
White Black klahoma Total	15 2	2	2	_	-
White Black Dklahoma	15			-	-

State and race of child 1/	Infant	Total neonatal	Early neonatal	Late neonatal	Postneonatal	
Oregon						
Total	4	4	3	1	-	
White	3	3	2	1	-	
Black	_	_	-	-	-	
Pennsylvania						
Total	6	5	5	_	1	
White	4	4	4	_	_	
Black	2	1	1	-	1	
Rhode Island						
Total	_	_	_	_	_	
	_	-	_	_	_	
White				-	-	
Black	-	-	-	-	-	
South Carolina						
Total	1	-	-	-	1	
White	-	-	-	-	-	
Black	1	-	-	-	1	
South Dakota						
Total	-	-	-	-	-	
White	-	-	-	-	-	
Black	-	-	-	-	-	
Tennessee						
Total	_	_	_	_	_	
White	_	_	_	_	_	
	_			_	-	
Black	-	-	-	-	-	
Texas						
Total	98	88	84	4	10	
White	61	55	53	2	6	
Black	35	31	29	2	4	
Utah						
Total	-	-	-	-	-	
White	-	-	-	-	-	
Black	-	-	-	-	-	
Vermont						
Total	-	-	-	-	-	
White	_	_	_	_	_	
Black	-	-	-	-	-	
Virginia						
Total	-	-	-	-	_	
White	_	_	_	_	_	
Black	-	-	-	-	-	
Washington						
Total	1		_	_	1	
		-				
White	1	-	-	-	1	
Black	-	-	-	-	-	
West Virginia						
Total	-	-	-	-	-	
White	-	-	-	-	-	
Black	-	-	-	-	-	
Wisconsin						
Total	-	-	-	-	-	
White	-	-	-	-	-	
Black	-	-	-	-	-	

[Infant deaths are under 1 year. Neonatal death are under 28 days; early neonatal, 0-6 days; late neonatal, 7-27 days; and postneonatal, 28 days through 11 months. Data in this table is for infant deaths in 2005 that are not included in the linked file because they were not linked with their corresponding birth certificates. See methodology section. Residence is of infant decedent; race is from death certificate]

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

I/ Totals for geographic areas include races other than white and black.
 Excludes data for foreign residents, Puerto Rico, Virgin Islands and Guam.