

**Public Use
Data File
Documentation**

2008 Cohort 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

2008 Cohort Linked Birth/Infant Death Data Set

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[Infant Mortality Statistics from the 2008 Period Linked Birth/Infant Death Data Set](#)

[User's Guide for the 2008 Natality File](#)

[Deaths: Final Data for 2008](#) (see Technical Notes)

Introduction

This documentation is for the 2008 birth cohort linked birth/infant death data set (linked file). Previous birth cohort linked files were released for data years 1983-91. Beginning with 1995 data, the linked file was released in two different formats - period data and birth cohort data.

Period data - The numerator for the 2008 period linked file consists of all infant deaths occurring in 2008 linked to their corresponding birth certificates, whether the birth occurred in 2007 or 2008. The denominator for this data set is all births occurring in 2008.

Birth cohort data - The numerator of the 2008 birth cohort linked file consists of deaths to infants born in 2008 linked to their corresponding birth certificates, whether the death occurred in 2008 or 2009. The denominator for this data set is all births occurring in 2008.

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

The 2008 birth cohort linked file includes several data files. The first file includes linked birth and death certificate data for all US infants born in 2008 who died before their first birthday - referred to as the numerator file. The second file contains information from the death certificate for all US infant death records which could not be linked to their corresponding birth certificates - referred to as the unlinked file. The third file is the 2008 NCHS natality file for the US with a few minor modifications - referred to as the denominator-plus file. These same three data files are also available for Puerto Rico, the Virgin Islands, and Guam. In addition, NCHS accepted a small number of late-filed birth records needed to link to infant deaths. This reduced the number of unlinked records and slightly increased the number of births in the denominator file.

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

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

This data file includes birth data based on both the 1989 Revision of the U.S. Standard Certificate of Live Birth (unrevised) and the 2003 revision of the U.S. Standard Certificate of Live Birth (revised). The 2003 revision is described in detail elsewhere. (See the 2003 Revision website at: http://www.cdc.gov/nchs/nvss/vital_certificate_revisions.htm).

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

Most of the variables from the death certificate in this file are comparable despite changes to item wording and format in the 2003 revision. See more about the 2003 Revision at: http://www.cdc.gov/nchs/nvss/vital_certificate_revisions.htm .

Incomplete National Reporting - Using Reporting Flags

As a result of the delayed, phased transition to the 2003 U.S. Standard Certificate of Live Birth, the 2008 cohort linked file includes data for reporting areas that use the 2003 revision of the U.S. Standard Certificate of Live Birth (revised) and data for reporting areas that use the 1989 Standard Certificate of Live Birth (unrevised) (see the [2008 Natality User Guide](#)). Although many data items are comparable across certificate revisions and are available for the entire United States, many items have more limited reporting areas. Also, birth data are collected by place of occurrence but are typically tabulated by mother’s place of residence. Reporting flags were developed to help the user more readily identify reporting areas for items with less than national reporting. Reporting flags are included in the file to assist in accurately excluding records from areas that do not report items when tabulating data by mother’s place of residence. Reporting flags are available for most items on the file. Positions for reporting flags are noted along with each data item in the file layout. Reporting flags must be invoked to generate accurate numbers by residence for items which are not reported by all states. Where applicable, reporting flags are shown in the column “Reporting Flag Position” in the file layout. Reporting flag codes are “0” (item not reported), and “1” (item reported). When using these data, select reporting flag=1 to get valid and complete data for an item (see SAS code examples below).

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

The correct use of reporting flags and translation of blanks will result in an accurate tally of births and infant deaths for items with incomplete national reporting.

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

An example of SAS code that may be used to incorporate the correct use of reporting flags and the translation of blanks is shown below. This example is for the revised prenatal care item. Prenatal care data based on the revised certificate are not considered comparable with data based on the unrevised certificate. Accordingly, use of the reporting flag for this item will produce 2008 cohort data for the month prenatal care began for the states that implemented the revised birth certificate by January 1st 2008.

Sample SAS program

```
01 DATA work;
02     INFILE 'C:\VS08LKBC.USNUMPUB' LRECL=1259;
03     INPUT
04         restatus 138
05         precare 245-246
06         f_mpcb 668;
07
08     /*Exclude foreign residents*/
09     IF restatus NE 4;
10     /*Select reporting area*/
11     IF f_mpcb=1;
12     /*Convert blanks to unknown*/
13     IF precare=. THEN precare=99;
14
15 PROC FREQ;
16     TABLE precare;
17 RUN;
```

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

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

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

```
01 DATA work;
02     INFILE 'C:\VS08LKBC.USNUMPUB ' LRECL=1259;
03     INPUT
04         restatus 138
05         xmrstate $ 107-108
```

```

06           precare 245-246;
07
08       /*Exclude foreign residents*/
09       IF restatus NE 4;
10       /*Select reporting area*/
11       IF xmrstate in ('ID','KY','NY','PA','SC','TN','WA');
12       /*Convert blanks to unknown*/
13       IF precare=. THEN precare=99;
14
15   PROC FREQ;
16       TABLE precare;
17   RUN;

```

Single, Multiple, and Bridged Race

In 1997, the Office of Management and Budget (OMB) issued revised standards requiring Federal collection programs to allow respondents to select *one or more race categories*. In order to provide uniformity and comparability of the data before all or most of the data are available in the new multiple-race format, it was necessary to “bridge” the responses of those for whom more than one race was reported (multiple race) to one, single race. See the “Technical Notes” of [Births: Final Data for 2008](#) and [Deaths: Final Data for 2008](#).

Weighting

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

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

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

Birthweight

Beginning with the 1995 linked file, an imputation for not-stated birthweight was added to the data set, to reduce potential bias in the computation of birthweight-specific infant mortality rates. Basically, if birthweight is not stated and the period of gestation is known, birthweight is assigned the value from the previous record with the same period of gestation, race, sex, and plurality. Imputed values are flagged. The addition of this imputation has reduced the percent of not-stated responses for birthweight from 3.26 to

0.49 in the numerator file, and from 0.10 to 0.02 in the denominator file, thus greatly reducing the potential for underestimation when computing birthweight-specific infant mortality rates.

Methodology

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

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

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

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

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

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

Characteristics of Unlinked File

For the 2008 cohort linked file 1.3% of all infant death records could not be linked to their corresponding birth certificates. Unlinked records are included in a separate data file in this data set. The unlinked record file uses the same record layout as the numerator file of

linked birth and infant death records. However, except as noted below, locations reserved for information from the matching birth certificate are blank since no matching birth certificate could be found for these records. The sex field contains the sex of infant as reported on the death certificate, rather than the sex of infant from the birth certificate, which is not available. The race field contains the race of the decedent as reported on the death certificate rather than the race of mother as reported on the birth certificate as is the case with the linked record file. The race of mother on the birth certificate is generally considered to be more accurate than the race information from the death certificate (see section on Race and Hispanic origin in [Deaths: Final Data for 2008](#)). 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 2008 cohort linked file for the 50 States and D.C. includes 27,523 linked infant death records and 372 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 27,895.

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 Louisiana (95.6) and Texas (94.9). 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, 2008 cohort linked file

United States	98.7	Nebraska	99.4
Alabama	100.0	Nevada	100.0
Alaska	98.6	New Hampshire	100.0
Arizona	97.2	New Jersey	98.9
Arkansas	100.0	New Mexico	96.7
California	97.2	New York State	100.0
Colorado	100.0	New York City	99.3
Connecticut	99.1	North Carolina	99.9
Delaware	100.0	North Dakota	100.0
District of Columbia	98.2	Ohio	98.7
Florida	99.8	Oklahoma	97.8

Georgia	98.6	Oregon	100.0
Hawaii	100.0	Pennsylvania	99.8
Idaho	100.0	Rhode Island	97.6
Illinois	98.6	South Carolina	100.0
Indiana	99.8	South Dakota	100.0
Iowa	99.5	Tennessee	100.0
Kansas	100.0	Texas	94.9
Kentucky	99.2	Utah	96.2
Louisiana	95.6	Vermont	100.0
Maine	100.0	Virginia	99.3
Maryland	100.0	Washington	100.0
Massachusetts	100.0	West Virginia	99.4
Michigan	99.7	Wisconsin	100.0
Minnesota	100.0	Wyoming	100.0
Mississippi	99.2	Puerto Rico	98.4
Missouri	99.1	Virgin Islands	75.0
Montana	100.0	Guam	96.6

Confidentiality

To minimize the risk of disclosure of individual or institutional information NCHS public-use data files do not contain the actual day of the birth or the dates of birth of the mother or father. Also, for public-use files from 2005 forward, no U.S. geographic detail is identified.

Resources

The documents listed below describe in detail the procedures employed for demographic classification on both the birth and death records and medical classification on death records. These documents, while not absolutely essential to the proper interpretation of the data for a number of general applications, should nevertheless be studied carefully prior to any detailed analysis of demographic or medical variables. In particular, there are a number of details about multiple cause-of-death coding which, if not understood and analyzed properly, may result in faulty analysis of the data. Volumes 1, 2 and 3 of the ICD-10 may be purchased from the World Health Organization (WHO) Publication Center USA, see <http://www.cdc.gov/nchs/icd/icd10.htm> . Many of the instruction manuals listed below are available electronically on the NCHS website. The User Guide for natality and the mortality final report for 2008 linked in this document also provide information on the source of data, coding procedures, quality of the data, etc.

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

Instruction manuals are available at:

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

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

Underlying Cause of Death Data

Mortality statistics by cause of death are compiled from entries on the medical certification portion of the death certificate. Causes of death include “all those diseases, morbid conditions or injuries which either resulted in or contributed to death and the circumstances of the accident or violence which produced these injuries”. The medical certification of death is divided into two sections. In Part I, the physician is asked to provide the causal chain of morbid conditions that led to death, beginning with the condition most proximate to death on line (a) and working backwards to the initiating condition. Part I of the medical certification is designed to facilitate the selection of the underlying cause of death when two or more causes are recorded on the certificate. The underlying cause of death is defined by the WHO in the ICD-10 as “(a) the disease or injury which initiated the chain of morbid events leading directly to death, or (b) the circumstances of the accident or violence that produced the fatal injury” and is generally considered the most useful cause from a public health standpoint. Part II of the cause-of-death section of the death certificate solicits other conditions that the certifier believed contributed to death, but were not in the causal chain. While some details of the death certificate vary by state, all states use the same general format for medical certification outlined in the U.S. Standard Certificate. The U.S. Standard Certificate, in turn, closely follows the format recommended by the WHO.

For a given death, the underlying cause is selected from the condition or conditions recorded by the certifier in the cause-of-death section of the death certificate. NCHS is bound by international agreement to make the selection of the underlying cause through the use of the ICD-10 classification structure, and the selection and modification rules contained in this revision of the ICD. Additional information on the underlying cause of death can be found at <http://www.cdc.gov/nchs/data/dvs/mort99doc.pdf> .

In addition to changes due to the implementation of a new ICD revision, rules for coding a cause of death may occasionally require modification at other times, when evidence suggests that such modifications will improve the quality of cause-of-death data. These changes may affect comparability of data between years for select causes of death.

Multiple Cause of Death Data

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

Record axis is designed for the generation of person-based multiple cause statistics. Person-based analysis requires that each condition be coded within the context of every other condition on the same death certificate and modified or linked to such conditions as provided by ICD-10. By definition, the entity data cannot meet this requirement since the linkage provisions modify the character and placement of the information originally recorded by the certifier. Essentially, the axis of the classification has been converted from an entity basis to a record (or person) basis. The record axis codes are assigned in terms of the set of codes that best describe the overall medical certification portion of the death certificate. Additional information on multiple cause data processing can be found at <http://www.cdc.gov/nchs/data/dvs/mort99doc.pdf> .

Entity Axis Codes

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

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

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

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

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

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

3. Entity Axis Applications. The entity axis multiple cause data file is appropriate for analyses that require that each condition be coded as a stand alone entity without linkage to other conditions and/or require information on the placement of such conditions on the death certificate. Within this framework, the entity data are appropriate to examine relationships among conditions and the validity of traditional assumptions in underlying cause selection. Additionally, the entity data provide in certain categories a more detailed code assignment that could be excluded in creating record axis data. Where such detail is needed for a study, the user should use entity data. Finally, the researcher may not wish to be bound by the assumptions used in the axis translation process.

The main limitation of entity axis data is that it does not necessarily reflect the best code for a condition when considered within the context of the medical certification as a whole. As a result, certain entity codes can be misleading or even contradict other codes in the record. For example, category K80.2 is titled “Calculus of gallbladder without cholecystitis.” Within the framework of entity codes this is interpreted to mean that the

codable entity itself contained no mention of cholecystitis rather than that cholecystitis was not mentioned anywhere on the record. Tabulation of records with a "K80.2" as a count of persons having Calculus of gallbladder without cholecystitis would therefore be erroneous. This illustrates the fact that under entity coding the ICD-10 titles cannot be taken literally. The user should study the rules for entity coding as they relate to his/her research prior to use of entity data. The user is further cautioned that the inclusion notes in ICD-10 that relate to modifying and combining categories are seldom applicable to entity coding (except where provided in NCHS Instruction Manual Part 2b).

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

Record Axis Codes

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

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

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

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

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

3. Record Axis Applications. The record axis multiple cause data are the basis for NCHS core multiple cause tabulations. Location of codes is not relevant to this data, and conditions have been linked into the most meaningful categories for the certification. The

most immediate consequence for the user is that the codes on the record already represent mention of a disease assignable to that particular ICD-10 category. This is in contrast to the entity code which is assigned each time such a disease is reported on different lines of the certification. Secondly, the linkage implies that within the constraints of ICD-10 the most meaningful code has been assigned. The translation process creates for the user a data file that is edited for contradictions, duplicate codes, and imprecisions. In contrast to entity axis data, record axis data are classified in a manner comparable to underlying cause of death classification thereby facilitating joint analysis of these variables. A potential disadvantage of record axis data is that some detail is sacrificed in a number of the linkages.

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

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

Additional Information

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

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

2008 Cohort Linked Selected Data Elements and Locations

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

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

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

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

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
2008 COHORT LINKED FILE PUBLIC-USE RECORD LAYOUT							
1-6	6	FILLER	Filler				
7	1	REVISION	Revision		U,R	R	State used the 2003 version of the US Standard Birth Certificate (Revised)
						U	State used the 1989 version of the US Standard Birth Certificate (Unrevised)
8	1	FILLER	Filler				
9	1	LATEREC	Late Record Flag		U,R	0	Not late record
						1	Late record
10-14	5	SEQNUM	Infant Death Number This number uniquely identifies the same infant In the numerator and denominator-plus files.			00001-nnnnn	
15-18	4	DOB_YY	Birth Year		U,R	2006 2007	2006 2007
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,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
30-31	2	OSTATE	Occurrence Territory (This item is available in the territory file only, geographic codes are not available in the U.S.file)		U,R		
			<u>Outlying Areas of the U.S.</u>			GU PR VI	Guam Puerto Rico Virgin Islands
32-36	5	FILLER	Filler				
37-39	3	OCNTYFIPS	Occurrence County (This item is available in the territory file only, geographic codes are not available in the U.S.file)		U,R		
			<u>Puerto Rico</u>			127 999	San Juan County less than 250,000
			<u>Other Outlying Areas of the U.S.</u>			000 999	No county level geography County less than 250,000
40	1	OCNTYPOP	Occurrence County Pop (This item is available in the territory file only, geographic codes are not available in the U.S.file)		U,R	0 1 2 9	County of 1,000,000 or more County of 500,000 to 1,000,000 County of 250,000 to 500,000 County less than 250,000
41	1	BFACIL	Birth Place (Revised)	676	R	1 2 3 4 5 6 7 9 Blank	Hospital Freestanding Birthing Center Home (intended) Home (not intended) Home (unknown if intended) Clinic / Doctor's Office Other Unknown Not on certificate
42	1	UBFACIL	Birth Place		U,R	1 2 3 4 5 9	Hospital Freestanding Birthing Center Clinic / Doctor's Office Residence Other Unknown
* 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
43-58	16	FILLER	Filler				
59	1	BFACIL3	Birth Place Recode		U,R	1 2 3	In Hospital Not in Hospital Unknown or Not Stated
60-86	27	FILLER	Filler				
87	1	MAGE_IMPFLG	Mother's Age Imputed		U,R	Blank 1	Age not imputed Age imputed
88	1	MAGE_REPFLG	Reported Age of Mother Flag		U,R	Blank 1	Reported age not used Reported age used
89-90	2	MAGER	Mother's Age Recode 41		U,R	12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40	10 – 12 years 13 years 14 years 15 years 16 years 17 years 18 years 19 years 20 years 21 years 22 years 23 years 24 years 25 years 26 years 27 years 28 years 29 years 30 years 31 years 32 years 33 years 34 years 35 years 36 years 37 years 38 years 39 years 40 years

* 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
						41	41 years
						42	42 years
						43	43 years
						44	44 years
						45	45 years
						46	46 years
						47	47 years
						48	48 years
						49	49 years
						50	50 -54 years
91-92	2	MAGER14	Mother's Age Recode 14		U,R	01	Under 15 Years
						03	15 years
						04	16 years
						05	17 years
						06	18 years
						07	19 years
						08	20-24 years
						09	25-29 years
						10	30-34 years
						11	35-39 years
						12	40-44 years
						13	45-49 years
						14	50-54 years
93	1	MAGER9	Mother's Age Recode 9		U,R	1	Under 15 years
						2	15-19 years
						3	20-24 years
						4	25-29 years
						5	30-34 years
						6	35-39 years
						7	40-44 years
						8	45-49 years
						9	50-54 years
94-95	2	MBCNTRY	Mother's Birth Country (This item is available in the territory file only, geographic codes are not available in the U.S.file)		R**	AA-ZZ	A complete list is shown in the Geographic Code Outline.

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

96-108	13	FILLER	Filler				
	* U,R						Includes data based on both the 1989 Revision of the U.S. Certificate of Live Birth (unrevised), and the 2003 Revision of the U.S. Certificate of Live Birth (revised).
	U						Includes data based on both the 1989 Revision of the U.S. Certificate of Live Birth; excludes data based on the 2003 Revision.
	R						Includes data based on both the 2003 Revision of the U.S. Certificate of Live Birth; excludes data based on the 1989 Revision.

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
109-110	2	MRTERR	Mother's Residence (This item is available in the territory file only, geographic codes are not available in the U.S.file)		U,R	GU PR VI CC CU MX US XX ZZ	Guam Puerto Rico Virgin Islands Canada Cuba Mexico United States Not Applicable Not Classifiable
111-113	3	FILLER	Filler				
114-116	3	MRCNTY	Mother's County of residence (This item is available in the territory file only, geographic codes are not available in the U.S.file)			127 999	San Juan County of less than 250,000 or foreign resident
			<u>Other Outlying Areas of the US</u>			000 999	No county level geography County of less than 250,000 or foreign resident
117-131	15	FILLER	Filler				
132	1	RCNTY_POP	Population of Residence County (This item is available in the territory file only, geographic codes are not available in the U.S.file)		U,R	0 1 2 9 Z	County of 1,000,000 or more County of 500,000 to 1,000,000 County of 250,000 to 500,000 County less than 250,000 Foreign resident
133-136	4	FILLER	Filler				
137	1	RECTYPE	Record Type (This item is available in the territory file		U,R	1	RESIDENT: State and county of occurrence and residence are the same.
		* 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
			only, geographic codes are not available in the U.S.file)			2	NONRESIDENT: State and county of occurrence and residence are different.
138	1	RESTATUS	Residence Status <u>United States</u>		U,R	1	RESIDENT: State and county of occurrence and residence are the same.
						2	INTRASTATE NONRESIDENT: State of occurrence and residence are the same but county is different.
						3	INTERSTATE NONRESIDENT: State of occurrence and residence are different but both are one of the 50 US states or District of Columbia.
						4	FOREIGN RESIDENT: The state of residence is not one of the 50 US states or District of Columbia.
			<u>Outlying areas of the US</u>			1	RESIDENT: State and county of occurrence and residence are the same. (Unique to Guam, all US residents are considered residents of Guam and thus are assigned 1.)
						2	INTRATERRITORY NONRESIDENT: Territory of occurrence and residence are the same but county is different.
						2	INTERTERRITORY RESIDENT: Territory of occurrence and residence are different but both are US Territories.
						3	FOREIGN RESIDENT: The residence is not a US Territory.
139-140	2	MBRACE	Mother's Bridged Race Includes only states reporting multiple race. Codes 01-14 used for individuals reporting only one race. Codes 21-24 used for individuals reporting more than one race that have been bridged to a single race. Code 24 also used for individuals reporting more than one Asian/Pacific Islander group; see "Technical Appendix."		R**	01	White – single race
						02	Black – single race
						03	American Indian/Alaska Native – single race
						04	Asian Indian – single race
						05	Chinese – single race
						06	Filipino – single race
						07	Japanese – single race
						08	Korean – single race
						09	Vietnamese – single race
						10	Other Asian – single race
						11	Hawaiian – single race
						12	Guamanian – single race
						13	Samoan – single race
						14	Other Pacific Islander – single race
						21	White – bridged multiple race
						22	Black – bridged multiple race
						23	American Indian / Alaska Native – bridged multiple race
						24	Asian / Pacific Islander – bridged multiple race
			** Also includes unrevised states that report multiple race.			Blank	Not on certificate
* 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
141-142	2	MRACE	Mother's Race Includes only states exclusively reporting single race. Some areas report additional Asian or Pacific Islander (API) codes for race. Codes 18-68 replace former code 08 for these areas. Code 78 replaces former code 08 for all other areas. See reporting flag at position 650 for API reporting area.		U		
			<u>United States</u>			01 02 03 04 05 06 07 18 28 38 48 58 68 78	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.
						Blank	Not on certificate
			<u>Puerto Rico</u>			01 02 00 Blank	White Black Other races Not on certificate
			<u>Guam</u>			01 02 03 04 05 06 07 08 58 Blank	White Black American Indian / Alaska Native Chinese Japanese Hawaiian (includes part Hawaiian) Filipino Other Asian or Pacific Islander Guamanian Not on certificate

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

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

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
			<u>All other Outlying Areas of the US</u>			01 02 03 04 05 06 07 08 Blank	White Black American Indian / Alaska Native Chinese Japanese Hawaiian (includes part Hawaiian) Filipino Other Asian or Pacific Islander Not on certificate
143	1	MRACEREC	Mother's Race Recode Includes individuals reporting only one race and individuals reporting more than one race bridged to a single race.		U,R		
			<u>United States and all Outlying Areas of the United States except Puerto Rico</u>			1 2 3 4	White Black American Indian / Alaskan Native Asian / Pacific Islander
			<u>Puerto Rico</u>			1 2 0	White Black Other (not classified as White or Black)
144	1	MRACEIMP	Mother's Race Imputed Flag		U,R	Blank 1 2	Mother's race not imputed Unknown race imputed All other races, formerly coded 09, imputed.
145-147	3	FILLER	Filler				
148	1	UMHISP	Mother's Hispanic Origin	569	U,R	0 1 2 3 4 5 9	Non-Hispanic Mexican Puerto Rican Cuban Central American Other and Unknown Hispanic Origin unknown or not stated
149	1	MRACEHISP	Mother's Race/Hispanic Origin	569	U,R	1 2	Mexican Puerto Rican

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

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
						3	Cuban
						4	Central or South American
						5	Other and Unknown Hispanic
						6	Non-Hispanic White
						7	Non-Hispanic Black
						8	Non-Hispanic Other Races
						9	Origin unknown or not stated
150-152	3	FILLER	Filler				
153	1	MAR	Mother's Marital Status		U,R		
			<u>United States and all Outlying Areas of the US except Puerto Rico</u>			1	Yes
						2	No
						9	Unknown or not Stated
			<u>Puerto Rico</u>			1	Yes
						2	Unmarried parents living together
						3	Unmarried parents not living together
						9	Unknown or not stated
154	1	MAR_IMP	Mother's Marital Status Imputed Flag		U,R	Blank	Marital Status not imputed
						1	Marital Status imputed
155	1	MEDUC	Mother's Educ –Revised	571	R	1	8 th grade or less
						2	9 th through 12 th grade with no diploma
						3	High school graduate or GED completed
						4	Some college credit, but not a degree.
						5	Associate degree (AA,AS)
						6	Bachelor's degree (BA, AB, BS)
						7	Master's degree (MA, MS, MEng, MEd, MSW, MBA)
						8	Doctorate (PhD, EdD) or Professional Degree (MD, DDS, DVM, LLB, JD)
						9	Unknown
						Blank	Not on certificate
156-157	2	UMEDUC	Mother's Educ –Unrevised	647	U	00	No formal education
						01-08	Years of elementary school
						09	1 year of high school
						10	2 years of high school
						11	3 years of high school
						12	4 years of high school
						13	1 year of college
						14	2 years of college

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

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
						15	3 years of college
						16	4 years of college
						17	5 or more years of college
						99	Not stated
						Blank	Not on certificate
158	1	MEDUC_REC	Mother's Education Recode 647		U	1	0 – 8 years
						2	9 – 11 years
						3	12 years
						4	13 – 15 years
						5	16 years and over
						6	Not stated
						Blank	Not on certificate
159-174	16	FILLER	Filler				
175	1	FAGERPT_FLG	Father's Reported Age Used		U,R	Blank	Father's reported age not used
						1	Father's reported age used
176-181	6	FILLER	Filler				
182-183	2	FAGECOMB	Father's Combined Age (Revised)		R	09-98	Father's combined age in years
						99	Unknown or not stated
						Blank	Not on certificate
184-185	2	UFAGECOMB	Father's Combined Age (Unrevised)		U	10-98	Father's combined age in years
						99	Unknown or not stated
186-187	2	FAGEREC11	Father's Age Recode 11		U,R	01	Under 15 years
						02	15-19 years
						03	20-24 years
						04	25-29 years
						05	30-34 years
						06	35-39 years
						07	40-44 years
						08	45-49 years
						09	50-54 years
						10	55-98 years
						11	Not stated
188-189	2	FBRACE	Father's Bridged Race Includes only states reporting multiple race. Codes 01-14 used for individuals reporting only one race. Codes 21-24 used for individuals reporting more than		R**	01	White – single race
						02	Black – single race
						03	American Indian/Alaska Native – single race
						04	Asian Indian – single race

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

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
			one race that have been bridged to a single race. Code 24 also used for individuals reporting more than one Asian/Pacific Islander group; see "Technical Appendix."			05 06 07 08 09 10 11 12 13 14 21 22 23 24 99	Chinese – single race Filipino – single race Japanese – single race Korean – single race Vietnamese – single race Other Asian – single race Hawaiian – single race Guamanian – single race Samoan – single race Other Pacific Islander – single race White – bridged multiple race Black – bridged multiple race American Indian / Alaska Native – bridged multiple race Asian / Pacific Islander – bridged multiple race Unknown or not stated, also includes states not reporting multiple race.
			** Also includes unrevised states that report multiple race.			Blank	Not on certificate
190	1	FILLER	Filler				
191	1	FRACEREC	Father's Race Recode Includes individuals reporting only one race and individuals reporting more than one race bridged to a single race.		U,R		
			<u>United States and all Outlying Areas of the US except Puerto Rico</u>			1 2 3 4 9	White Black American Indian / Alaskan Native Asian / Pacific Islander Unknown or not stated
			<u>Puerto Rico</u>			1 2 9 0	White Black Unknown or not stated Other (not classified as White or Black)
192-194	3	FILLER	Filler				
195	1	UFHISP	Father's Hispanic Origin				
				570	U,R	0 1 2 3	Non-Hispanic Mexican Puerto Rican Cuban
			* 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
						4	Central American
						5	Other and Unknown Hispanic
						9	Origin unknown or not stated
196	1	FRACEHISP	Father's Race/Hispanic Origin	570	U,R	1	Mexican
						2	Puerto Rican
						3	Cuban
						4	Central or South American
						5	Other and Unknown Hispanic
						6	Non-Hispanic White
						7	Non-Hispanic Black
						8	Non-Hispanic Other Races
						9	Origin unknown or not stated
197-198	2	FILLER	Filler				
199-200	2	UFRACE	Father's Race (Unrevised)		U		
			<u>United States</u>			01	White
						02	Black
						03	American Indian / Alaska Native
						04	Chinese
						05	Japanese
						06	Hawaiian (includes part Hawaiian)
						07	Filipino
						18	Asian Indian
						28	Korean
						38	Samoan
						48	Vietnamese
						58	Guamanian
						68	Other Asian or Pacific Islander in areas reporting codes 18-58.
						78	Combined other Asian or Pacific Islander, includes 18-68 for areas that do not report them separately.
						99	Unknown or not stated
						Blank	Not on certificate
			<u>Puerto Rico</u>			01	White
						03	Black
						00	Other races not classified white or black
						99	Unknown or not stated
						Blank	Not on certificate
			<u>Guam</u>			01	White

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

* 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
						09	September
						10	October
						11	November
						12	December
						88	Not applicable
						99	Unknown or not stated
222-225	4	DLLB_YY	Date of Last Live Birth Year		R	nnnn 8888 9999	Year of last live birth Not applicable Unknown or not stated
226-244	19	FILLER	Filler				
245-246	2	PRECARE	Month Prenatal Care Began (Revised)				
			668		R	00 01-10 99 Blank	No prenatal care Month prenatal care began Unknown or not stated Not on certificate
247	1	PRECARE_REC	Month Prenatal Care Began Recode (Revised)				
			668		R	1 2 3 4 5 Blank	1 st to 3 rd month 4 th to 6 th month 7 th to final month No prenatal care Unknown or not stated Not on certificate
248-255	8	FILLER	Filler				
256-257	2	MPCB	Month Prenatal Care Began (Unrevised)				
			669		U	00 01-10 99 Blank	No prenatal care Month prenatal care began Unknown or not stated Not on certificate
258	1	MPCB_REC6	Month Prenatal Care Began Recode 6 (Unrevised)				
			669		U	1 2 3 4 5 6 Blank	1 st to 2 nd month 3 rd month 4 th to 6 th month 7 th to final month No prenatal care Unknown or not stated Not on certificate

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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
259	1	MPCB_REC5	Month Prenatal Care Began Recode 5 (Unrevised)	669	U	1 2 3 4 5 Blank	1 st trimester (1 st to 3 rd month) 2 nd trimester (4 th to 6 th month) 3 rd trimester (7 th to final month) No prenatal care Unknown or not stated Not on certificate
260-269	10	FILLER	Filler				
270-271	2	UPREVIS	Number of Prenatal Visits		U,R	00-49 99	Number of prenatal visits Unknown or not stated
272-273	2	PREVIS_REC	Number of Prenatal Visits Recode		U,R	01 02 03 04 05 06 07 08 09 10 11 12	No visits 1 to 2 visits 3 to 4 visits 5 to 6 visits 7 to 8 visits 9 to 10 visits 11 to 12 visits 13 to 14 visits 15 to 16 visits 17 to 18 visits 19 or more visits Unknown or not stated
274-275	2	FILLER	Filler				
276-277	2	WTGAIN	Weight Gain	648	U,R	00-97 98 99	Weight gain in pounds 98 pounds and over Unknown or not stated
278	1	WTGAIN_REC	Weight Gain Recode	648	U,R	1 2 3 4 5 6 7 8 9	Less than 16 pounds 16 to 20 pounds 21 to 25 pounds 26 to 30 pounds 31 to 35 pounds 36 to 40 pounds 41 to 45 pounds 46 or more pounds Unknown or not stated
279	1	FILLER	Filler				

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Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
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 1st Trimester	575	R	00-97 98 99 Blank	Number of cigarettes daily 98 or more cigarettes daily Unknown or not stated Not on certificate
286-287	2	CIG_2	Cigarettes 2nd Trimester	575	R	00-97 98 99 Blank	Number of cigarettes daily 98 or more cigarettes daily Unknown or not stated Not on certificate
288-289	2	CIG_3	Cigarettes 3rd Trimester	575	R	00-97 98 99 Blank	Number of cigarettes daily 98 or more cigarettes daily Unknown or not stated Not on certificate
290	1	TOBUSE	Tobacco Use	667	U	1 2 9 Blank	Yes No Unknown or not stated Not on certificate
291-292	2	CIGS	Cigarettes per Day	667	U	00-97 98 99 Blank	Number of cigarettes daily 98 or more cigarettes daily Unknown or not stated Not on certificate
293	1	UCIG_REC6	Cigarette Recode	667	U	0 1 2 3 4 5 6 Blank	Non-smoker 1 to 5 cigarettes daily 6 to 10 cigarettes daily 11 to 20 cigarettes daily 21 to 40 cigarettes daily 41 or more cigarettes daily Unknown or not stated Not on certificate
294	1	CIG_REC	Cigarette Recode	575	R	Y N U Blank	Yes No Unknown or not stated Not on certificate

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Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
295-312	18	FILLER	Filler				
313-319	9	<u>Risk Factors (Revised)</u> The checkbox items below follow this code structure:				Y N U Blank	Yes No Unknown or not stated Not on certificate
313	1	RF_DIAB	Prepregnancy Diabetes	582	R		
314	1	RF_GEST	Gestational Diabetes	583	R		
315	1	RF_PHYP	Prepregnancy Hypertesion	584	R		
316	1	RF_GHYP	Gestational Hypertension	585	R		
317	1	RF_ECLAM	Eclampsia	586	R		
318	1	RF_PPTERM	Previous Preterm Birth	587	R		
319	1	RF_PPOUTC	Poor Pregnancy Outcome	588	R		
320-323	4	FILLER	Filler				
324	1	RF_CESAR	Previous Cesarean Deliveries	593	R	Y N U Blank	Yes No Unknown or not stated Not on certificate
325-326	2	RF_CESARN	Number of Previous Cesarean Deliveries	594	R	00 01-30 99 Blank	None Number of previous cesareans Unknown or not stated Not on certificate
327	1	FILLER	Filler				
328-337	10	<u>Risk Factors in this Pregnancy</u> The checkbox items indented below follow this structure: The version is all 1989 Standard unless otherwise noted.				U	
328-330	3	FILLER	Filler			1 2 9 Blank	Yes No Unknown Not on certificate
331	1	URF_DIAB	Diabetes	684	U,R		
332-334	3	FILLER	Filler				
335	1	URF_CHYPER	Chronic Hypertension	688	U,R		
336	1	URF_PHYPER	Pregnancy-Associated Hypertension	689	U,R		
337	1	URF_ECLAM	Eclampsia	690	U,R		
338-350	13	FILLER	Filler				

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Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
351-354	4	<u>Obstetric Procedures (Revised)</u> The checkbox items indented below follow this structure:				Y N U Blank	Yes No Unknown or not stated Not on certificate
351	1	OP_CERV	Cervical Cerclage	601	R		
352	1	OP_TOCOL	Tocolysis	602	R		
353	1	OP_ECVS	Successful External Cephalic Version	603	R		
354	1	OP_ECVF	Failed External Cephalic Version	604	R		
355-361	7	<u>Obstetric Procedures (Unrevised)</u> The checkbox items indented below follow this structure: The version is all 1989 Standard unless otherwise noted.				1 2 9 Blank	Yes No Unknown or not stated Not on certificate
355-356	2	FILLER	Filler				
357	1	UOP_INDUC	Induction of Labor	703	U,R		
358	1	FILLER	Filler				
359	1	UOP_TOCOL	Tocolysis	705	U,R		
360-361	2	FILLER	Filler				
362-364	3	<u>Onset of Labor</u> The checkbox items below follow this structure:				Y N U Blank	Yes No Unknown or not stated Not on certificate
362	1	ON_RUPTR	Premature Rupture of Membrane	605	R		
363	1	ON_PRECIP	Precipitous Labor	606	R		
364	1	ON_PROL	Prolonged Labor	607	R		
365-373	9	<u>Characteristics of Labor and Delivery (Revised)</u> The checkbox items below follow this structure:				Y N U Blank	Yes No Unknown or not stated Not on certificate
365	1	LD_INDL	Induction of Labor	608	R		
366	1	LD_AUGM	Augmentation of Labor	609	R		
367	1	LD_NVPR	Non-Vertex Presentation	610	R		
368	1	LD_STER	Steroids	611	R		
369	1	LD_ANTI	Antibiotics	612	R		
370	1	LD_CHOR	Chorioamnionitis	613	R		
371	1	LD_MECS	Meconium Staining	614	R		
372	1	LD_FINT	Fetal Intolerance	615	R		

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Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
373	1	LD_ANES	Anesthesia	616	R		
374-389	16	<u>Complications of Labor and Delivery</u> The checkbox items indented below follow this structure:					1 Yes 2 No 9 Unknown or not stated Blank Not on certificate
374	1	FILLER	Filler				
375	1	ULD_MECO	Meconium	712	U,R		
376-380	5	FILLER	Filler				
381	1	ULD_PRECIP	Precipitous Labor	718	U,R		
382-383	2	FILLER	Filler				
384	1	ULD_BREECH	Breech	721	U,R		
385-389	5	FILLER	Filler				
390-394	5	<u>Method of Delivery (Revised)</u>					
390	1	ME_ATTf	Attempted Forceps	617	R	Y Yes N No U Unknown Blank Not on certificate	
391	1	ME_ATTv	Attempted Vacuum	618	R	Y Yes N No U Unknown Blank Not on certificate	
392	1	ME_PRES	Fetal Presentation	619	R	1 Cephalic 2 Breech 3 Other 9 Unknown Blank Not on certificate	
393	1	ME_ROUT	Route & Method of Delivery	620	R	1 Spontaneous 2 Forceps 3 Vacuum 4 Cesarean 9 Unknown Blank Not on certificate	
394	1	ME_TRIAL	Trial of Labor Attempted	621	R	Y Yes N No X Not applicable	

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Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
						U Blank	Unknown Not on certificate
395-400	6	<u>Method of Delivery (Unrevised)</u> The checkbox items indented below follow this structure:				1 2 9	Yes No Unknown or not stated
395	1	UME_VAG	Vaginal	730	U		
396	1	UME_VBAC	Vaginal after C-Section	731	U		
397	1	UME_PRIMC	Primary C-Section	732	U		
398	1	UME_REPEC	Repeat C-Section	733	U		
399	1	UME_FORCP	Forceps	734	U,R		
400	1	UME_VAC	Vacuum	735	U,R		
401	1	RDMETH_REC	Delivery Method Recode (Revised) 679		R	1 2 3 4 5 6 9	Vaginal (excludes vaginal after previous C-section) Vaginal after previous c-section Primary C-section Repeat C-section Vaginal (unknown if previous c-section) (2003 Standard only) C-section (unknown if previous c-section) (2003 Standard only) Not stated
402	1	UDMETH_REC	Delivery Method Recode (Unrevised) 680		U	1 2 3 4 9	Vaginal (excludes vaginal after previous C-section) Vaginal after previous c-section Primary C-section Repeat C-section Not stated
403	1	DMETH_REC			U,R	1 2 9	Vaginal C-Section Unknown
404-409	6	FILLER	Filler				
410	1	ATTEND	Attendant		U,R	1 2 3 4	Doctor of Medicine (MD) Doctor of Osteopathy (DO) Certified Nurse Midwife (CNM) Other Midwife

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Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
						5 9	Other Unknown or not stated
411-414	4	FILLER	Filler				
415-416	2	APGAR5	Five Minute APGAR Score 574		U,R	00-10 99	A score of 0-10 Unknown or not stated
417	1	APGAR5R	Five Minute APGAR Recode 574		U,R	1 2 3 4 5	A score of 0-3 A score of 4-6 A score of 7-8 A score of 9-10 Unknown or not stated
418-422	5	FILLER	Filler				
423	1	DPLURAL	Plurality Recode		U,R	1 2 3 4 5	Single Twin Triplet Quadruplet Quintuplet or higher
424	1	FILLER	Filler				
425	1	IMP_PLUR	Plurality Imputed		U,R	Blank 1	Plurality is imputed Plurality is not imputed
426-435	10	FILLER	Filler				
436	1	SEX	Sex of Infant		U,R	M F	Male Female
437	1	IMP_SEX	Imputed Sex		U,R	Blank 1	Infant Sex not Imputed Infant Sex is Imputed
438-439	2	DLMP_MM	Last Normal Menses Month		U,R	01 02 03 04 05 06 07 08	January February March April May June July August

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Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
						09 10 11 12 99	September October November December Unknown or not stated
440-441	2	DLMP_DD	Last Normal Menses Day		U,R	01-31 99	As applicable to month of LMP Unknown or not stated
442-445	4	DLMP_YY	Last Normal Menses Year		U,R	nnnn 9999	Year of last normal menses Unknown or not stated
446-447	2	ESTGEST	Obstetric/Clinical Gestation 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 Weeks		U,R	17-47 99	17 th through 47 th week of gestation Unknown
453-454	2	GESTREC10	Gestation Recode 10		U,R	01 02 03 04 05 06 07 08 09 10 99	Under 20 weeks 20-27 weeks 28-31 weeks 32-33 weeks 34-36 weeks 37-38 weeks 39 weeks 40 weeks 41 weeks 42 weeks and over Unknown
455	1	GESTREC3	Gestation Recode 3		U,R	1 2 3	Under 37 weeks 37 weeks and over Not stated
456	1	OBGEST_FLG	Clinical Estimate of Gestation Used Flag		U,R	Blank 1	Clinical Estimate is not used Clinical Estimate is used
457	1	GEST_IMP	Gestation Imputed Flag		U,R	Blank 1	Gestation is not imputed Gestation is imputed
458-466	9	FILLER	Filler				
467-470	4	BRTHWGT	Imputed Birthweight		U,R	0227-8165	Number of grams
		* U,R	Includes data based on both the 1989 Revision of the U.S. Certificate of Live Birth (unrevised), and the 2003 Revision of the U.S. Certificate of Live Birth (revised).				
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Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
						9999	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 2500 – 2999 grams 3000 – 3400 grams 3500 – 3999 grams 4000 – 4499 grams 4500 – 4999 grams 5000 – 8165 grams Not Stated
473	1	BWTR4	Birthweight Recode 4		U,R	1 2 3 4	1499 grams or less 1500 – 2499 grams 2500 grams or more Unknown or not stated
474	1	FILLER	Filler				
475	1	BWTIMP	Imputed Birth Weight Flag		U,R	Blank 1	Birth Weight is not imputed Birth Weight is imputed
476-482	7	<u>Abnormal Conditions of the Newborn (Revised)</u> The checkbox items below follow this structure:				Y N U Blank	Yes, Complication reported No Complication reported Unknown or not stated Not on certificate
476	1	AB_AVEN1	Assisted Ventilation	628	R		
477	1	AB_AVEN6	Assisted Ventilation >6 hrs	629	R		
478	1	AB_NICU	Admission to NICU	630	R		
479	1	AB_SURF	Surfactant	631	R		
480	1	AB_ANTI	Antibiotics	632	R		
481	1	AB_SEIZ	Seizures	633	R		
482	1	AB_BINJ	Birth Injury	634	R		
483-491	9	FILLER	Filler				
492-503	12	<u>Congenital Anomalies of the Newborn (Revised)</u>					
		* U,R	Includes data based on both the 1989 Revision of the U.S. Certificate of Live Birth (unrevised), and the 2003 Revision of the U.S. Certificate of Live Birth (revised).				
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		R	Includes data based on both the 2003 Revision of the U.S. Certificate of Live Birth; excludes data based on the 1989 Revision.				

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
			The checkbox items below follow this structure:			Y	Yes, anomaly reported
					N	No, anomaly not reported	
					U	Unknown	
					Blank	Not on certificate	
492	1	CA_ANEN	Anencephaly	635	R		
493	1	CA_MNSB	Meningomyelocele/Spina Bifida	636	R		
494	1	CA_CCHD	Cyanotic Congenital Heart Disease	637	R		
495	1	CA_CDH	Congenital Diaphragmatic Hernia	638	R		
496	1	CA_OMPH	Omphalocele	639	R		
497	1	CA_GAST	Gastroschisis	640	R		
498	1	CA_LIMB	Limb Reduction Defect	641	R		
499	1	CA_CLEFT	Cleft Lip w/ or w/o Cleft Palate	642	R		
500	1	CA_CLPAL	Cleft Palate alone	643	R		
501	1	CA_DOWN	Downs Syndrome	644	R	C	Confirmed
					P	Pending	
					N	No	
					U	Unknown	
					Blank	Not on certificate	
502	1	CA_DISOR	Suspected Chromosomal Disorder	645	R	C	Confirmed
					P	Pending	
					N	No	
					U	Unknown	
					Blank	Not on certificate	
503	1	CA_HYPO	Hypospadias	646	R	Y	Yes, Anomaly reported
					N	No, Anomaly not reported	
					U	Unknown	
					Blank	Not on certificate	
504-523	20	<u>Congenital Anomalies of the Newborn</u>					
		The checkbox items indented below follow this structure:				1	Anomaly reported
		The version is all 1989 Standard unless otherwise noted.				2	Anomaly not reported
						9	Anomaly not classifiable
						Blank	Not on certificate
504	1	UCA_ANEN	Anencephalus	752	U,R		
505	1	UCA_SPINA	Spina Bifida / Meningocele	753	U,R		
506-512	7	FILLER	Filler				
513	1	UCA_OMPHA	Omphalocele / Gastroschisis	761	U,R		
514-517	4	FILLER	Filler				
518	1	UCA_CELFTLP	Cleft Lip / Palate	766	U,R		
519-522	4	FILLER	Filler				
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523	1	UCA_DOWNS	Downs Syndrome	771	U,R		
524-568	45	FILLER	Filler				
569-771	203	<u>Flag File for Reporting Flags</u> The reporting flags indented below follow this coding structure:				0 1	Not reporting Reporting
569	1	F_MORIGIN	Origin of Mother		U,R		
570	1	F_FORIGIN	Origin of Father		U,R		
571	1	F_MEDUC	Education of Mother		R		
572	1	FILLER	Filler				
573	1	F_CLINEST	Clinical Estimate of Gestation		U,R		
574	1	F_APGAR5	Five minute APGAR		U,R		
575	1	F_TOBACO	Tobacco use		R		
576-581	6	FILLER	Filler				
582	1	F_RF_PDIAB	Prepregnancy Diabetes		R		
583	1	F_RF_GDIAB	Gestational Diabetes		R		
584	1	F_RF_PHYPER	Prepregnancy Hypertension		R		
585	1	F_RF_GHYPER	Gestational Hypertension		R		
586	1	F_RF_ECLAMP	Eclampsia		R		
587	1	F_RF_PPB	Previous Preterm Birth		R		
588	1	F_RF_PPO	Poor Pregnancy Outcome		R		
589-592	4	FILLER	Filler				
593	1	F_RF_CESAR	Previous Cesarean		R		
594	1	F_RF_NCESAR	Number of Previous Cesareans		R		
595-600	6	FILLER	Filler				
601	1	F_OB_CERVIC	Cervical Cerclage		R		
602	1	F_OB_TOCO	Tocolysis		R		
603	1	F_OB_SUCC	Successful External Cephalic Version		R		
604	1	F_OB_FAIL	Failed External Cephalic Version		R		
605	1	F_OL_RUPTURE	Premature Rupture of Membranes		R		
606	1	F_OL_PRECIP	Precipitous Labor		R		
607	1	F_OL_PROLONG	Prolonged Labor		R		
608	1	F_LD_INDUCT	Induction of Labor		R		
609	1	F_LD_AUGMENT	Augmentation of Labor		R		
610	1	F_LD_NVRTX	Non-Vertex Presentation		R		
611	1	F_LD_STEROIDS	Steroids		R		
612	1	F_LD_ANTIBIO	Antibiotics		R		
613	1	F_LD_CHORIO	Chorioamnionitis		R		
614	1	F_LD_MECON	Meconium Staining		R		
615	1	F_LD_FINTOL	Fetal Intolerance		R		
616	1	F_LD_ANESTH	Anesthesia		R		
617	1	F_MD_ATTFOR	Attempted Forceps		R		
618	1	F_MD_ATTVAC	Attempted Vacuum		R		

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619	1	F_MD_PRESENT	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		
649-666	18	FILLER	Filler				
667	1	F_TOBAC	Tobacco Use		U		
668	1	F_MPCB	Month Prenatal Care Began		R		
669	1	F_MPCB_U	Month Prenatal Care Began		U		
670-683	14	FILLER	Filler				
684	1	F_URF_DIABETES	Diabetes		U		
685-687	3	FILLER	Filler				
688	1	F_URF_CHYPER	Chronic Hypertension		U		
689	1	F_URF_PHYPER	Pregnancy Associated Hypertension		U		
690	1	F_URF_ECLAMP	Eclampsia		U		
691-702	12	FILLER	Filler				
703	1	F_UOB_INDUCT	Induction of Labor		U		
704	1	FILLER	Filler				
705	1	F_UOB_TOCOL	Tocolysis		U		
706-711	6	FILLER	Filler				
712	1	F_ULD_MECONIUM	Meconium		U		
713-717	5	FILLER	Filler				
718	1	F_ULD_PRECIP	Precipitous Labor		U		
719-720	2	FILLER	Filler				

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721	1	F_ULD_BREECH	Breech		U		
722-729	8	FILLER	Filler				
730	1	F_U_VAGINAL	Vaginal		U		
731	1	F_U_VBAC	Vaginal after C-Section		U		
732	1	F_U_PRIMAC	Primary C-Section		U		
733	1	F_U_REPEAC	Repeat C-Section		U		
734	1	F_U_FORCEP	Forceps		U		
735	1	F_U_VACUUM	Vacuum		U		
736-751	16	FILLER	Filler				
752	1	F_UCA_ANEN	Anencephalus		U		
753	1	F_UCA_SPINA	Spina Bifida / Meningocele		U		
754-760	7	FILLER	Filler				
761	1	F_UCA_OMPHALO	Omphalocele / Gastroschisis		U		
762-765	4	FILLER	Filler				
766	1	F_UCA_CLEFTLP	Cleft Lip / Palate		U		
767-770	4	FILLER	Filler				
771	1	F_UCA_DOWNS	Downs Syndrome		U		
772-867	96	FILLER	Filler				
868	1	FLGND	Match Status				a. Matched birth/infant death record b. Surviving infant record c. Unmatched infant death record (code used only in unlinked file)
869-871	3	FILLER	Filler				
872-874	3	AGED	Age at Death in Days			000-365	Number of days
875	1	AGER5	Infant age recode 5			1 2 3 4 5	Under 1 hour 1 – 23 hours 1 – 6 days 7 – 27 days (late neonatal) 28 days and over (postneonatal)
876-877	2	AGER22	Infant age recode 22			Blank 01 02 03 04 05 06 07	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

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Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
						08	6 days
						09	7-13 days
						10	14 – 20 days
						11	21 – 27 days
						12	1 month (includes not stated months)
						13	2 months
						14	3 months
						15	4 months
						16	5 months
						17	6 months
						18	7 months
						19	8 months
						20	9 months
						21	10 months
						22	11 months
878	1	MANNER	Manner of Death			1	Accident
						2	Suicide
						3	Homicide
						4	Pending investigation
						5	Could not determine
						6	Self-inflicted
						7	Natural
						Blank	Not specified
879	1	DISPO	Method of Disposition			B	Burial
						C	Cremation
						O	Other
						U	Unknown
880	1	AUTOPSY	Autopsy			Y	Yes
						N	No
						U	Unknown
881	1	FILLER	Filler				
882	1	PLACE	Place of injury for causes W00-Y34, except Y06.- and Y07.-			0	Home
						1	Residential institution
						2	School, other institution and public administrative area
						3	Sports and athletics area
						4	Street and highway
						5	Trade and service area
						6	Industrial and construction area
						7	Farm

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

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

901-902	2	FILLER	Filler				
903-904	2	EANUM	Number of Entity-Axis Conditions			00-20	Code range
905-1044	140	ENTITY	Entity-Axis Conditions Space has been provided for a maximum of 20 conditions. Each condition takes 7 positions in the record. The 7 th position will be blank. Records that do not have 20 conditions are blank in the unused area.				
			Position 1:	Part/line number on certificate			
			1	...	Part I, line 1 (a)		
			2	...	Part I, line 2 (b)		
			3	...	Part I, line 3 (c)		
			4	...	Part I, line 4 (d)		
			5	...	Part I, line 5 (e)		
			6	...	Part II		
			Position 2:	Sequence of condition within part/line			
			1-7	...	Code range		

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Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
			Position 3 – 6: Condition code See Table 1 for a complete list of codes				
			905-911	7			1 st Condition
			912-918	7			2 nd Condition
			919-925	7			3 rd Condition
			926-932	7			4 th Condition
			933-939	7			5 th Condition
			940-946	7			6 th Condition
			947-953	7			7 th Condition
			954-960	7			8 th Condition
			961-967	7			9 th Condition
			968-974	7			10 th Condition
			975-981	7			11 th Condition
			982-988	7			12 th Condition
			989-995	7			13 th Condition
			996-1002	7			14 th Condition
			1003-1009	7			15 th Condition
			1010-1016	7			16 th Condition
			1017-1023	7			17 th Condition
			1024-1030	7			18 th Condition
			1031-1037	7			19 th Condition
			1038-1044	7			20 th Condition
1045-1046	2	FILLER	Filler				
1047-1048	2	RANUM	Number of Record-Axis Conditions			00-20	Code range
1049-1148	100	RECORD	Record-Axis Conditions Space has been provided for a maximum of 20 conditions. Each condition takes 5 positions in the record. The 5 th position will be blank. Records that do not have 20 conditions are blank in the unused area.				
			Positions 1 – 4: Condition Code See Table 1 for a complete list of codes				
			1049-1053	5			1 st Condition
			1054-1058	5			2 nd Condition
			1059-1063	5			3 rd Condition
			1064-1068	5			4 th Condition
			1069-1073	5			5 th Condition
			1074-1078	5			6 th Condition
			1079-1083	5			7 th Condition
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Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
	1084-1088	5	8 th Condition				
	1089-1093	5	9 th Condition				
	1094-1098	5	10 th Condition				
	1099-1103	5	11 th Condition				
	1104-1108	5	12 th Condition				
	1109-1113	5	13 th Condition				
	1114-1118	5	14 th Condition				
	1119-1123	5	15 th Condition				
	1124-1128	5	16 th Condition				
	1129-1133	5	17 th Condition				
	1134-1138	5	18 th Condition				
	1139-1143	5	19 th Condition				
	1144-1148	5	20 th Condition				
1149-1150	2	FILLER	Filler				
1151	1	D_RESTATUS	Death Resident Status				
			United States Occurrence			1	RESIDENTS State and County of Occurrence and Residence are the same.
						2	INTRASTATE NONRESIDENTS State of Occurrence and Residence are the same, but County is different.
						3	INTERSTATE NONRESIDENTS State of Occurrence and Residence are different, but both are in the U.S.
						4	FOREIGN RESIDENTS State of Occurrence is one of the 50 States or the District of Columbia, but Place of Residence is outside of the U.S.
			Puerto Rico Occurrence			1	RESIDENTS Territory and County-equivalent of Occurrence and Residence are the same.
						2	INTRASTATE NONRESIDENTS Territory of Occurrence and Residence are the same, but County-equivalent is different.
						3	INTERTERRITORY NONRESIDENTS Territory of occurrence and residence are different, but both are a Territory.
						4	FOREIGN RESIDENTS Occurred in Puerto Rico to a resident of any other place.
			Virgin Islands Occurrence			1	RESIDENTS
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Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
							Territory and County-equivalent of Occurrence and Residence are the same.
					2	INTRASTATE NONRESIDENTS	Territory of Occurrence and Residence are the same, but County-equivalent is different.
					3	INTERTERRITORY NONRESIDENTS	Territory of occurrence and residence are different, but both are a Territory.
					4	FOREIGN RESIDENTS	Occurred in Virgin Islands to a resident of any other place.
			Guam Occurrence		1	RESIDENTS	Occurred in Guam to a resident of Guam or to a resident of the U.S.
					3	INTERTERRITORY NONRESIDENTS	Territory of occurrence and residence are different, but both are a Territory.
					4	FOREIGN RESIDENTS	Occurred in Guam to a resident of any place other than Guam or the U.S.
1152-1153	2	STOCCFIPD	State of Occurrence (FIPS) of Death (This item is available in the territory file only, geographic codes are not available in the U.S.file)				
						PR	Puerto Rico
						VI	Virgin Islands
						GU	Guam
1154-1156	3	CNTOCFIPD	County of Occurrence (FIPS) of Death Counties and county equivalents (independent and coextensive cities) are numbered alphabetically within each State and identify each county. (Note: To uniquely identify a county, both the state and county codes must be used.) A complete list of counties is shown in the Geographic Code Outline further back in this document. (This item is available in the territory file only, geographic codes are not available in the U.S.file)				
						001-999	Code range County of less than 250,000
* U,R			Includes data based on both the 1989 Revision of the U.S. Certificate of Live Birth (unrevised), and the 2003 Revision of the U.S. Certificate of Live Birth (revised).				
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Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
1157-1159	3	FILLER	Filler				
1160-1161	2	STRESFIPD	State of Residence (FIPS) (This item is available in the territory file only, geographic codes are not available in the U.S.file)				
			Territories			PR VI GU	Puerto Rico Virgin Islands Guam
			Puerto Rico Occurrence			PR US,ZZ	Puerto Rico Foreign residents
			Virgin Islands Occurrence			VI US, ZZ	Virgin Islands Foreign residents
			Guam Occurrence			GU US ZZ	Guam U.S. resident. Also considered a resident of Guam. Foreign residents
1162-1163	2	FILLER	Filler				
1164-1165	2	DRCNTY	State/Country of Residence of Death Recode (This item is available in the territory file only, geographic codes are not available in the U.S.file)				
			Territorial residents			PR VI GU	Puerto Rico Virgin Islands Guam
			Foreign residents			CC MX CU YY	Canada Mexico Cuba Remainder of the world
			Puerto Rico Occurrence			PR US,ZZ	Puerto Rico Foreign residents
			Virgin Islands Occurrence			VI US, ZZ	Virgin Islands Foreign residents

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Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
			Guam Occurrence			GU US ZZ	Guam U.S. resident. Also considered a resident of Guam Foreign residents
1166-1167	3	CNTYRFPD	County of Residence (FIPS) of Death Counties and county equivalents (independent and coextensive cities) are numbered alphabetically within each State and identify each county. (Note: To uniquely identify a county, both the state and county codes must be used.) A complete list of counties is shown in the Geographic Code Outline further back in this document. (This item is available in the territory file only, geographic codes are not available in the U.S.file)			000 001-999	Foreign residents Code range County of less than 250,000
1169-1181	13	FILLER	Filler				
1182	1	CNTRSPPD	Population Size of County of Residence of Death Based on the results of the 2000 Census (This item is available in the territory file only, geographic codes are not available in the U.S.file)			0 1 2 9 Z	County of 1,000,000 or more County of 500,000 to 1,000,000 County of 250,000 to 500,000 County of less than 250,000 Foreign residents
1183-1185	3	FILLER	Filler				
1186	1	HOSPD	Place of Death and Decedent's Status			1 2 3 4 5 6 7	Hospital, clinic or Medical Center – Inpatient Hospital, clinic or Medical Center – Outpatient or admitted to Emergency Room Hospital, clinic or Medical Center – Dead on Arrival Decedent's home Hospice facility Nursing home/long term care Other
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Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
						9	Place of death unknown
1187	1	WEEKDAYD	Day of Week of Death			1 2 3 4 5 6 7 9	Sunday Monday Tuesday Wednesday Thursday Friday Saturday Unknown
1188-1191	4	DTHYR	Death Year			2007	2007
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

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

130 Recode	S Limited T Sex Age	Cause Title and ICD-10 Codes Included
001	1	Certain infectious and parasitic diseases (A00-B99)
002		Certain intestinal infectious diseases (A00-A08)
003		Diarrhea and gastroenteritis of infectious origin (A09)
004		Tuberculosis (A16-A19)
005		Tetanus (A33,A35)
006		Diphtheria (A36)
007		Whooping cough (A37)
008		Meningococcal infection (A39)
009	3	Septicemia (A40-A41)
010		Congenital syphilis (A50)
011		Gonococcal infection (A54)
012	1	Viral diseases (A80-B34)
013		Acute poliomyelitis (A80)
014		Varicella (chickenpox) (B01)
015		Measles (B05)
016		Human immunodeficiency virus (HIV) disease (B20-B24)
017		Mumps (B26)
018		Other and unspecified viral diseases (A81-B00,B02-B04,B06-B19,B25,B27-B34)
019		Candidiasis (B37)
020		Malaria (B50-B54)
021		Pneumocystosis (B59)
022		All other and unspecified infectious and parasitic diseases (A20-A32,A38,A42-A49,A51-A53,A55-A79,B35-B36,B38-B49,B55-B58,B60-B99)
023	1	Neoplasms (C00-D48)
024	1	Malignant neoplasms (C00-C97)
025		Hodgkin's disease and non-Hodgkin's lymphomas (C81-C85)
026		Leukemia (C91-C95)
027		Other and unspecified malignant neoplasms (C00-C80,C88,C90,C96-C97)
028		In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior (D00-D48)
029	1	Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism (D50-D89)
030		Anemias (D50-D64)
031		Hemorrhagic conditions and other diseases of blood and blood-forming organs (D65-D76)
032		Certain disorders involving the immune mechanism (D80-D89)
033	1	Endocrine, nutritional and metabolic diseases (E00-E88)
034		Short stature, not elsewhere classified (E34.3)
035		Nutritional deficiencies (E40-E64)
036		Cystic fibrosis (E84)
037	3	Volume depletion, disorders of fluid, electrolyte and acid-base balance (E86-E87)
038		All other endocrine, nutritional and metabolic diseases (E00-E32,E34.0-E34.2,E34.4-E34.9,E65-E83,E85,E88)
039	1	Diseases of the nervous system (G00-G98)
040		Meningitis (G00,G03)
041		Infantile spinal muscular atrophy, type I (Werdnig-Hoffman) (G12.0)
042		Infantile cerebral palsy (G80)
043		Anoxic brain damage, not elsewhere classified (G93.1)
044		Other diseases of nervous system (G04,G06-G11,G12.1-G12.9,G20-G72,G81-G92,G93.0,G93.2-G93.9,G95-G98)
045		Diseases of the ear and mastoid process (H60-H93)
046	1	Diseases of the circulatory system (I00-I99)
047		Pulmonary heart disease and diseases of pulmonary circulation (I26-I28)
048		Pericarditis, endocarditis and myocarditis (I30,I33,I40)
049		Cardiomyopathy (I42)
050		Cardiac arrest (I46)
051		Cerebrovascular diseases (I60-I69)
052		All other diseases of circulatory system (I00-I25,I31,I34-I38,I44-I45,I47-I51, I70-I99)
053	1	Diseases of the respiratory system (J00-J98)
054		Acute upper respiratory infections (J00-J06)
055	1	Influenza and pneumonia (J10-J18)

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

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

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130 S Limited

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

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

Documentation Table 1. Live births and infant deaths by state of occurrence of birth and by state of residence at birth United States, Puerto Rico, Virgin Islands, and Guam, 2008 Link Birth Cohort Data.

(Residence of birth is of the mother)

State	Live births		Infant deaths			
	Occurrence	Residence	Unweighted Occurrence	Unweighted Residence	Weighted 1/ Occurrence	Weighted 1/ Residence
United States /2	4255188	4247726	27523	27492	27895	27863
Alabama	63450	64546	587	593	587	593
Alaska	11329	11442	74	78	75	79
Arizona	100089	99442	597	598	610	611
Arkansas	39502	40669	277	300	279	302
California	552643	551804	2737	2735	2802	2800
Colorado	70527	70031	451	432	451	432
Connecticut	40930	40399	232	238	235	241
Delaware	12545	12090	102	96	102	96
Dist of Columbia	14499	19130	140	97	141	98
Florida	231652	231445	1691	1664	1695	1668
Georgia	147799	146603	1122	1127	1136	1141
Hawaii	19463	19484	104	104	105	105
Idaho	24676	25149	132	143	134	145
Illinois	173412	176797	1156	1224	1176	1244
Indiana	89345	88742	635	630	636	631
Iowa	40281	40224	219	235	219	235
Kansas	42568	41833	313	313	315	315
Kentucky	56622	58376	377	416	379	418
Louisiana	65075	65270	552	554	581	582
Maine	13500	13609	80	78	80	78
Maryland	74615	77289	586	609	589	612
Massachusetts	77543	77022	386	384	388	386
Michigan	120172	121127	901	900	904	903
Minnesota	72220	72421	435	431	438	434
Mississippi	44139	44947	412	431	414	433
Missouri	81992	80963	626	579	632	584
Montana	12551	12594	82	83	83	84
Nebraska	27082	26989	156	147	158	149
Nevada	39192	39506	198	197	205	204
New Hampshire	13630	13683	52	51	52	51
New Jersey	109703	112710	560	595	566	601
New Mexico	29572	30173	139	150	153	164
New York	124681	128133	689	749	694	754
New York City	127680	122251	667	601	667	601
North Carolina	132106	130839	1063	1052	1064	1053
North Dakota	10312	8938	64	59	65	60
Ohio	149346	148821	1181	1145	1200	1163
Oklahoma	53720	54781	393	400	401	408
Oregon	49499	49096	252	247	252	247
Pennsylvania	148460	149273	1132	1108	1135	1111
Rhode Island	12812	12048	84	69	84	69
South Carolina	60401	63071	447	478	449	480
South Dakota	12632	12072	118	106	118	106
Tennessee	90885	85560	748	680	748	680
Texas	412127	405554	2394	2376	2503	2484
Utah	56787	55634	271	255	275	259
Vermont	5957	6339	25	31	25	31
Virginia	104990	106686	713	721	718	726
Washington	90318	90321	502	498	507	503
West Virginia	21441	21501	152	162	153	163
Wisconsin	71272	72261	478	487	478	487
Wyoming	7444	8038	39	56	39	56
Foreign Residents	-	7462	-	31	-	32
Puerto Rico	45683	45620	376	375	376	375
Virgin Islands	1844	1784	6	7	6	7
Guam	3464	3455	28	27	28	27

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

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

Documentation Table 2

Live births, infant deaths, and infant mortality rates by race of mother, sex and birthweight of child: United States, 2008
birth cohort data

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

Race of mother and sex	Total	<500 grams	500-749 grams	750-999 grams	1000-1249 grams	1250-1499 grams	1500-1999 grams	2000-2499 grams	2500 grams or more	Not stated
All races ¹										
Both sexes										
Live births.....	4,247,726	7,225	11,282	12,330	14,465	17,541	67,232	218,468	3,898,189	994
Infant deaths.....	27,863	6,261	5,041	1,770	963	786	1,818	2,223	8,866	135
Infant mortality rate.....	6.56	866.57	446.82	143.55	66.57	44.81	27.04	10.18	2.27	135.81
Male										
Live births.....	2,173,409	3,755	5,774	6,350	7,317	8,858	32,912	100,201	2,007,706	536
Infant deaths.....	15,549	3,321	2,929	1,108	566	441	916	1,132	5,035	99
Infant mortality rate.....	7.15	884.42	507.27	174.49	77.35	49.79	27.83	11.30	2.51	184.70
Female										
Live births.....	2,074,317	3,470	5,508	5,980	7,148	8,683	34,320	118,267	1,890,483	458
Infant deaths.....	12,314	2,940	2,112	662	397	345	901	1,091	3,831	35
Infant mortality rate.....	5.94	847.26	383.44	110.70	55.54	39.73	26.25	9.22	2.03	76.42
White										
Both sexes										
Live births.....	3,274,194	3,971	6,608	7,654	9,271	11,687	45,664	149,102	3,039,454	783
Infant deaths.....	18,076	3,463	3,046	1,126	632	548	1,285	1,562	6,324	90
Infant mortality rate.....	5.52	872.07	460.96	147.11	68.17	46.89	28.14	10.48	2.08	114.94
Male										
Live births.....	1,676,736	2,077	3,374	3,969	4,773	5,946	22,554	68,746	1,564,883	414
Infant deaths.....	10,060	1,839	1,761	709	363	307	650	787	3,577	66
Infant mortality rate.....	6.00	885.41	521.93	178.63	76.05	51.63	28.82	11.45	2.29	159.42
Female										
Live births.....	1,597,458	1,894	3,234	3,685	4,498	5,741	23,110	80,356	1,474,571	369
Infant deaths.....	8,016	1,624	1,285	417	268	241	634	776	2,746	24
Infant mortality rate.....	5.02	857.44	397.34	113.16	59.58	41.98	27.43	9.66	1.86	65.04
Black										
Both sexes										
Live births.....	670,811	2,861	4,078	3,967	4,346	4,781	17,040	53,090	580,492	156
Infant deaths.....	8,239	2,454	1,743	553	275	199	421	531	2,027	35
Infant mortality rate.....	12.28	857.74	427.42	139.40	63.28	41.62	24.71	10.00	3.49	224.36
Male										
Live births.....	340,887	1,477	2,077	2,019	2,099	2,320	8,091	23,761	298,951	92
Infant deaths.....	4,614	1,302	1,012	345	166	109	214	274	1,165	26
Infant mortality rate.....	13.54	881.52	487.24	170.88	79.09	46.98	26.45	11.53	3.90	282.61
Female										
Live births.....	329,924	1,384	2,001	1,948	2,247	2,461	8,949	29,329	281,541	64
Infant deaths.....	3,625	1,152	731	208	109	90	207	257	862	9
Infant mortality rate.....	10.99	832.37	365.32	106.78	48.51	36.57	23.13	8.76	3.06	*

^{1/} Includes races other than white and black.

Documentation Table 3

Live births, infant deaths, and infant mortality rates by birthweight, race of mother, and gestational age:
United States, 2008 birth cohort data

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

Birthweight	Gestation									
	Total	<28 Weeks	28-31 Weeks	32-35 Weeks	36 Weeks	37-39 Weeks	40 Weeks	41 Weeks	42 Weeks or more	Not Stated
All races ¹										
Total										
Live births	4,247,726	31,585	52,645	244,837	193,973	2,310,514	809,678	357,865	240,795	5,834
Infant deaths	27,863	12,458	2,212	2,820	1,058	6,095	1,565	743	659	255
Infant mortality rate	6.56	394.43	42.02	11.52	5.45	2.64	1.93	2.08	2.74	43.71
Less than 2,500 grams										
Live births	348,543	30,367	39,666	118,591	41,602	93,931	11,932	5,342	6,459	653
Infant deaths	18,862	12,446	2,100	2,083	460	1,283	161	118	119	92
Infant mortality rate	54.12	409.85	52.94	17.56	11.06	13.66	13.49	22.09	18.42	140.89
Less than 500 grams										
Live births	7,225	6,881	226	30	8	20	4	2	2	52
Infant deaths	6,261	6,016	156	18	6	17	4	1	2	40
Infant mortality rate	866.57	874.29	690.27	*	*	*	*	*	*	769.23
500-749 grams										
Live births	11,282	9,708	1,343	111	7	42	14	2	9	46
Infant deaths	5,041	4,593	361	40	3	15	3	1	4	20
Infant mortality rate	446.82	473.11	268.80	360.36	*	*	*	*	*	434.78
750-999 grams										
Live births	12,330	7,655	3,978	397	27	146	54	16	21	36
Infant deaths	1,770	1,306	374	65	6	7	2	1	-	9
Infant mortality rate	143.55	170.61	94.02	163.73	*	*	*	*	-	*
1,000-1,249 grams										
Live births	14,465	3,428	7,933	2,205	152	431	122	54	103	37
Infant deaths	963	329	419	147	13	30	9	6	6	4
Infant mortality rate	66.57	95.97	52.82	66.67	*	69.61	*	*	*	*
1,250-1,499 grams										
Live births	17,541	1,006	9,187	5,689	383	757	226	87	169	37
Infant deaths	786	99	340	247	18	59	6	6	7	3
Infant mortality rate	44.81	98.41	37.01	43.42	*	77.94	*	*	*	*
1,500-1,999 grams										
Live births	67,232	971	12,653	37,345	5,640	8,113	1,031	488	874	117
Infant deaths	1,818	83	347	771	123	381	42	27	36	7
Infant mortality rate	27.04	85.48	27.42	20.65	21.81	46.96	40.74	55.33	41.19	*
2,000-2,499 grams										
Live births	218,468	718	4,346	72,814	35,385	84,422	10,481	4,693	5,281	328
Infant deaths	2,223	19	102	794	291	774	95	75	64	9
Infant mortality rate	10.18	*	23.47	10.90	8.22	9.17	9.06	15.98	12.12	*
2,500-2,999 grams										
Live births	788,641	1,218	4,637	61,979	72,600	479,664	95,666	38,039	33,817	1,021
Infant deaths	3,204	12	66	434	341	1,717	334	152	141	7
Infant mortality rate	4.06	*	14.23	7.00	4.70	3.58	3.49	4.00	4.17	*
3,000-3,499 grams										
Live births	1,664,369	-	5,681	42,412	56,062	997,160	329,797	134,959	96,524	1,774
Infant deaths	3,502	-	31	201	195	1,979	593	254	240	9
Infant mortality rate	2.10	-	5.46	4.74	3.48	1.98	1.80	1.88	2.49	*

See footnotes at end of table.

Documentation Table 3

Live births, infant deaths, and infant mortality rates by birthweight, race of mother, and gestational age:
United States, 2008 birth cohort data

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

Birthweight	Gestation									
	Total	<28 Weeks	28-31 Weeks	32-35 Weeks	36 Weeks	37-39 Weeks	40 Weeks	41 Weeks	42 Weeks or more	Not Stated
All races ¹										
3,500-3,999 grams										
Live births	1,121,186	-	2,661	17,777	19,162	589,158	282,830	130,678	77,894	1,026
Infant deaths	1,670	-	15	77	47	890	361	158	119	4
Infant mortality rate	1.49	-	*	4.33	2.45	1.51	1.28	1.21	1.53	*
4,000-4,499 grams										
Live births	280,415	-	-	3,430	3,811	130,737	78,151	41,742	22,242	302
Infant deaths	377	-	-	15	7	170	96	53	33	3
Infant mortality rate	1.34	-	-	*	*	1.30	1.23	1.27	1.48	*
4,500-4,999 grams										
Live births	39,131	-	-	558	617	17,630	10,350	6,439	3,484	53
Infant deaths	84	-	-	5	4	45	17	8	4	1
Infant mortality rate	2.15	-	-	*	*	2.55	*	*	*	*
5,000 grams or more										
Live births	4,447	-	-	90	119	2,234	952	666	375	11
Infant deaths	28	-	-	4	4	11	3	1	2	3
Infant mortality rate	6.30	-	-	*	*	*	*	*	*	*
Not stated										
Live births	994	-	-	-	-	-	-	-	-	994
Infant deaths	135	-	-	-	-	-	-	-	-	135
Infant mortality rate	135.81	-	-	-	-	-	-	-	-	135.81
White										
Total										
Live births	3,274,194	18,717	35,475	175,513	143,812	1,783,294	637,548	285,574	190,056	4,205
Infant deaths	18,076	7,294	1,431	2,000	733	4,333	1,125	536	465	160
Infant mortality rate	5.52	389.70	40.34	11.40	5.10	2.43	1.76	1.88	2.45	38.05
Less than 2,500 grams										
Live births	233,957	17,938	26,521	82,806	28,466	61,995	7,899	3,635	4,306	391
Infant deaths	11,662	7,286	1,357	1,467	327	896	119	88	74	48
Infant mortality rate	49.85	406.18	51.17	17.72	11.49	14.45	15.07	24.21	17.19	122.76
Less than 500 grams										
Live births	3,971	3,776	133	17	7	13	4	-	-	21
Infant deaths	3,463	3,329	90	9	6	10	4	-	-	15
Infant mortality rate	872.07	881.62	676.69	*	*	*	*	-	-	*
500-749 grams										
Live births	6,608	5,626	827	80	3	28	9	1	6	28
Infant deaths	3,046	2,764	227	31	2	7	2	1	2	9
Infant mortality rate	460.96	491.29	274.49	387.50	*	*	*	*	*	*
750-999 grams										
Live births	7,654	4,662	2,502	267	16	105	44	15	17	26
Infant deaths	1,126	834	229	46	4	4	2	1	-	7
Infant mortality rate	147.11	178.89	91.53	172.28	*	*	*	*	*	*
1,000-1,249 grams										
Live births	9,271	2,198	5,092	1,420	94	273	79	33	60	22
Infant deaths	632	217	264	100	9	23	8	4	4	2
Infant mortality rate	68.17	98.73	51.85	70.42	*	84.25	*	*	*	*

See footnotes at end of table.

Documentation Table 3

Live births, infant deaths, and infant mortality rates by birthweight, race of mother, and gestational age:
United States, 2008 birth cohort data

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

Birthweight	Gestation									
	Total	<28 Weeks	28-31 Weeks	32-35 Weeks	36 Weeks	37-39 Weeks	40 Weeks	41 Weeks	42 Weeks or more	Not Stated
White										
1,250-1,499 grams										
Live births	11,687	655	6,183	3,737	245	526	151	58	110	22
Infant deaths	548	71	229	177	14	39	5	5	5	2
Infant mortality rate	46.89	108.40	37.04	47.36	*	74.14	*	*	*	*
1,500-1,999 grams										
Live births	45,664	562	8,906	25,348	3,788	5,385	708	329	566	72
Infant deaths	1,285	57	243	544	90	275	31	19	20	5
Infant mortality rate	28.14	101.42	27.28	21.46	23.76	51.07	43.79	*	35.34	*
2,000-2,499 grams										
Live births	149,102	459	2,878	51,937	24,313	55,665	6,904	3,199	3,547	200
Infant deaths	1,562	14	76	560	201	538	66	58	43	7
Infant mortality rate	10.48	*	26.41	10.78	8.27	9.66	9.56	18.13	12.12	*
2,500-2,999 grams										
Live births	552,834	779	2,940	45,040	53,003	334,087	65,965	26,520	23,838	662
Infant deaths	2,202	8	45	320	234	1,164	217	106	102	5
Infant mortality rate	3.98	*	15.31	7.10	4.41	3.48	3.29	4.00	4.28	*
3,000-3,499 grams										
Live births	1,279,155	-	3,949	30,777	43,384	768,697	252,282	104,261	74,517	1,288
Infant deaths	2,479	-	18	141	127	1,422	424	176	163	8
Infant mortality rate	1.94	-	*	4.58	2.93	1.85	1.68	1.69	2.19	*
3,500-3,999 grams										
Live births	928,391	-	2,065	13,611	15,300	489,020	234,131	108,726	64,734	804
Infant deaths	1,257	-	11	51	34	678	269	117	95	2
Infant mortality rate	1.35	-	*	3.75	2.22	1.39	1.15	1.08	1.47	*
4,000-4,499 grams										
Live births	241,553	-	-	2,736	3,101	112,566	67,455	36,182	19,286	227
Infant deaths	298	-	-	12	5	129	78	42	29	3
Infant mortality rate	1.23	-	-	*	*	1.15	1.16	1.16	1.50	*
4,500-4,999 grams										
Live births	33,797	-	-	470	467	15,097	8,991	5,681	3,050	41
Infant deaths	65	-	-	5	1	36	15	7	-	1
Infant mortality rate	1.92	-	-	*	*	2.38	*	*	-	*
5,000 grams or more										
Live births	3,724	-	-	73	91	1,832	825	569	325	9
Infant deaths	22	-	-	3	4	8	3	-	2	2
Infant mortality rate	5.91	-	-	*	*	*	*	-	*	*
Not stated										
Live births	783	-	-	-	-	-	-	-	-	783
Infant deaths	90	-	-	-	-	-	-	-	-	90
Infant mortality rate	114.94	-	-	-	-	-	-	-	-	114.94
Black										
Total										
Live births	670,811	11,194	13,973	53,492	37,063	356,761	113,515	48,083	35,549	1,181
Infant deaths	8,239	4,511	662	672	266	1,384	338	168	158	80
Infant mortality rate	12.28	402.98	47.38	12.56	7.18	3.88	2.98	3.49	4.44	67.74

See footnotes at end of table.

Documentation Table 3

Live births, infant deaths, and infant mortality rates by birthweight, race of mother, and gestational age:
United States, 2008 birth cohort data

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

Birthweight	Gestation									
	Total	<28 Weeks	28-31 Weeks	32-35 Weeks	36 Weeks	37-39 Weeks	40 Weeks	41 Weeks	42 Weeks or more	Not Stated
Black										
Less than 2,500 grams										
Live births	90,163	10,825	10,752	27,979	10,008	24,069	3,158	1,363	1,792	217
Infant deaths	6,176	4,508	629	498	114	297	28	23	38	39
Infant mortality rate	68.50	416.44	58.50	17.80	11.39	12.34	8.87	16.87	21.21	179.72
Less than 500 grams										
Live births	2,861	2,722	86	13	1	7	-	2	2	28
Infant deaths	2,454	2,349	64	9	-	7	-	1	2	21
Infant mortality rate	857.74	862.97	744.19	*	*	*	-	*	*	750.00
500-749 grams										
Live births	4,078	3,589	429	21	4	11	3	1	3	17
Infant deaths	1,743	1,603	115	6	1	5	-	-	2	10
Infant mortality rate	427.42	446.64	268.07	*	*	*	*	*	*	*
750-999 grams										
Live births	3,967	2,579	1,220	110	9	29	9	1	2	8
Infant deaths	553	407	119	19	2	3	-	-	-	2
Infant mortality rate	139.40	157.81	97.54	*	*	*	*	*	*	*
1,000-1,249 grams										
Live births	4,346	1,056	2,372	628	41	136	39	18	41	15
Infant deaths	275	101	121	37	3	6	1	1	2	2
Infant mortality rate	63.28	95.64	51.01	58.92	*	*	*	*	*	*
1,250-1,499 grams										
Live births	4,781	302	2,459	1,579	112	182	59	26	50	12
Infant deaths	199	19	96	57	4	19	-	1	2	1
Infant mortality rate	41.62	*	39.04	36.10	*	*	-	*	*	*
1,500-1,999 grams										
Live births	17,040	354	2,986	9,477	1,424	2,103	273	127	257	39
Infant deaths	421	22	91	185	29	68	7	5	13	1
Infant mortality rate	24.71	62.15	30.48	19.52	20.37	32.33	*	*	*	*
2,000-2,499 grams										
Live births	53,090	223	1,200	16,151	8,417	21,601	2,775	1,188	1,437	98
Infant deaths	531	5	23	185	75	189	20	15	17	2
Infant mortality rate	10.00	*	19.17	11.45	8.91	8.75	7.21	*	*	*
2,500-2,999 grams										
Live births	168,316	369	1,396	13,032	14,441	102,018	20,894	8,306	7,583	277
Infant deaths	831	3	20	96	89	454	93	39	35	2
Infant mortality rate	4.94	*	14.33	7.37	6.16	4.45	4.45	4.70	4.62	*
3,000-3,499 grams										
Live births	259,470	-	1,388	8,836	9,218	152,673	51,112	20,443	15,457	343
Infant deaths	809	-	10	54	50	432	134	64	62	1
Infant mortality rate	3.12	-	*	6.11	5.42	2.83	2.62	3.13	4.01	*
3,500-3,999 grams										
Live births	124,484	-	437	3,096	2,776	64,595	30,839	13,993	8,615	133
Infant deaths	309	-	2	21	9	157	67	32	18	1
Infant mortality rate	2.48	-	*	6.78	*	2.43	2.17	2.29	*	*

See footnotes at end of table.

Documentation Table 3

Live births, infant deaths, and infant mortality rates by birthweight, race of mother, and gestational age:
United states, 2008 birth cohort data

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

Birthweight	Gestation									
	Total	<28 Weeks	28-31 Weeks	32-35 Weeks	36 Weeks	37-39 Weeks	40 Weeks	41 Weeks	42 Weeks or more	Not Stated
Black										
4,000-4,499 grams										
Live births	24,428	-	-	470	500	11,517	6,582	3,488	1,826	45
Infant deaths	61	-	-	3	-	33	13	9	2	-
Infant mortality rate	2.50	-	-	*	-	2.87	*	*	*	-
4,500-4,999 grams										
Live births	3,342	-	-	66	102	1,613	861	445	247	8
Infant deaths	13	-	-	-	3	6	2	-	2	-
Infant mortality rate	*	-	-	-	*	*	*	-	*	*
5,000 grams or more										
Live births	452	-	-	13	18	276	69	45	29	2
Infant deaths	4	-	-	-	-	3	-	-	-	1
Infant mortality rate	*	-	-	*	*	*	-	-	-	*
Not stated										
Live births	156	-	-	-	-	-	-	-	-	156
Infant deaths	35	-	-	-	-	-	-	-	-	35
Infant mortality rate	224.36	-	-	-	-	-	-	-	-	224.36

-/ Quality zero.

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

¹/ Includes races other than white and black.

Documentation Table 4

Live births, infant deaths, and infant mortality rates by birthweight, race of mother, and age at death: United states, 2008 birth cohort data

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

Birthweight and race of mother	Live		Total	Early	Late	Post-
	Births	Infant	Neonatal	Neonatal	Neonatal	Neonatal
All races ¹						
Total (all birthweights).....	4,247,726	27,863	18,237	14,644	3,593	9,626
Rate.....		6.56	4.29	3.45	0.85	2.27
Less than 2,500 grams.....	348,543	18,862	15,204	12,781	2,422	3,659
Rate.....		54.12	43.62	36.67	6.95	10.50
Less than 500 grams.....	7,225	6,261	6,101	5,934	167	160
Rate.....		866.57	844.43	821.31	23.11	22.15
500-749 grams.....	11,282	5,041	4,256	3,404	852	785
Rate.....		446.82	377.24	301.72	75.52	69.58
750-999 grams.....	12,330	1,770	1,280	857	424	490
Rate.....		143.55	103.81	69.51	34.39	39.74
1,000-1,249 grams.....	14,465	963	680	473	207	283
Rate.....		66.57	47.01	32.70	14.31	19.56
1,250-1,499 grams.....	17,541	786	564	404	160	222
Rate.....		44.81	32.15	23.03	9.12	12.66
1,500-1,999 grams.....	67,232	1,818	1,196	921	275	621
Rate.....		27.04	17.79	13.70	4.09	9.24
2,000-2,499 grams.....	218,468	2,223	1,125	788	337	1,098
Rate.....		10.18	5.15	3.61	1.54	5.03
2,500-2,999 grams.....	788,641	3,204	1,220	757	463	1,984
Rate.....		4.06	1.55	0.96	0.59	2.52
3,000-3,499 grams.....	1,664,369	3,502	1,030	584	447	2,472
Rate.....		2.10	0.62	0.35	0.27	1.49
3,500-3,999 grams.....	1,121,186	1,670	473	281	192	1,197
Rate.....		1.49	0.42	0.25	0.17	1.07
4,000-4,499 grams.....	280,415	377	123	76	46	254
Rate.....		1.34	0.44	0.27	0.16	0.91
4,500-4,999 grams.....	39,131	84	42	28	14	42
Rate.....		2.15	1.07	0.72	*	1.07
5,000 grams or more.....	4,447	28	17	11	6	11
Rate.....		6.30	*	*	*	*
Not stated.....	994	135	129	126	3	6
Rate.....		135.81	129.78	126.76	*	*

See footnotes at end of table.

Documentation Table 4

Live births, infant deaths, and infant mortality rates by birthweight, race of mother, and age at death: United states, 2008 birth cohort data -Cont

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

Birthweight and race of mother	Live		Total	Early	Late	Post-
	Births	Infant	Neonatal	Neonatal	Neonatal	Neonatal
White						
Total (all birthweights).....	3,274,194	18,076	11,830	9,469	2,361	6,246
Rate.....		5.52	3.61	2.89	0.72	1.91
Less than 2,500 grams.....	233,957	11,662	9,536	8,033	1,503	2,126
Rate.....		49.85	40.76	34.34	6.42	9.09
Less than 500 grams.....	3,971	3,463	3,383	3,301	82	80
Rate.....		872.07	851.93	831.28	20.65	20.15
500-749 grams.....	6,608	3,046	2,663	2,172	491	383
Rate.....		460.96	403.00	328.69	74.30	57.96
750-999 grams.....	7,654	1,126	865	599	266	262
Rate.....		147.11	113.01	78.26	34.75	34.23
1,000-1,249 grams.....	9,271	632	480	346	134	152
Rate.....		68.17	51.77	37.32	14.45	16.40
1,250-1,499 grams.....	11,687	548	418	309	109	130
Rate.....		46.89	35.77	26.44	9.33	11.12
1,500-1,999 grams.....	45,664	1,285	897	716	181	387
Rate.....		28.14	19.64	15.68	3.96	8.47
2,000-2,499 grams.....	149,102	1,562	829	590	240	733
Rate.....		10.48	5.56	3.96	1.61	4.92
2,500-2,999 grams.....	552,834	2,202	918	584	334	1,283
Rate.....		3.98	1.66	1.06	0.60	2.32
3,000-3,499 grams.....	1,279,155	2,479	770	454	316	1,709
Rate.....		1.94	0.60	0.35	0.25	1.34
3,500-3,999 grams.....	928,391	1,257	370	221	149	887
Rate.....		1.35	0.40	0.24	0.16	0.96
4,000-4,499 grams.....	241,553	298	105	63	42	193
Rate.....		1.23	0.43	0.26	0.17	0.80
4,500-4,999 grams.....	33,797	65	33	24	9	32
Rate.....		1.92	0.98	0.71	*	0.95
5,000 grams or more.....	3,724	22	12	7	5	10
Rate.....		5.91	*	*	*	*
Not stated.....	783	90	85	82	3	5
Rate.....		114.94	108.56	104.73	*	*

See footnotes at end of table.

Documentation Table 4

Live births, infant deaths, and infant mortality rates by birthweight, race of mother, and age at death: United states, 2008 birth cohort data -Cont

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

Birthweight and race of mother	Live		Total	Early	Late	Post-
	Births	Infant	Neonatal	Neonatal	Neonatal	Neonatal
Black						
Total (all birthweights).....	670,811	8,239	5,418	4,366	1,051	2,821
Rate.....		12.28	8.08	6.51	1.57	4.21
Less than 2,500 grams.....	90,163	6,176	4,854	4,054	800	1,322
Rate.....		68.50	53.84	44.96	8.87	14.66
Less than 500 grams.....	2,861	2,454	2,380	2,304	76	74
Rate.....		857.74	831.88	805.31	26.56	25.87
500-749 grams.....	4,078	1,743	1,377	1,058	319	366
Rate.....		427.42	337.67	259.44	78.22	89.75
750-999 grams.....	3,967	553	350	207	144	202
Rate.....		139.40	88.23	52.18	36.30	50.92
1,000-1,249 grams.....	4,346	275	160	101	59	115
Rate.....		63.28	36.82	23.24	13.58	26.46
1,250-1,499 grams.....	4,781	199	122	76	45	78
Rate.....		41.62	25.52	15.90	9.41	16.31
1,500-1,999 grams.....	17,040	421	232	154	78	190
Rate.....		24.71	13.62	9.04	4.58	11.15
2,000-2,499 grams.....	53,090	531	233	155	78	298
Rate.....		10.00	4.39	2.92	1.47	5.61
2,500-2,999 grams.....	168,316	831	240	132	108	592
Rate.....		4.94	1.43	0.78	0.64	3.52
3,000-3,499 grams.....	259,470	809	192	92	100	617
Rate.....		3.12	0.74	0.35	0.39	2.38
3,500-3,999 grams.....	124,484	309	76	40	36	233
Rate.....		2.48	0.61	0.32	0.29	1.87
4,000-4,499 grams.....	24,428	61	11	9	2	49
Rate.....		2.50	*	*	*	2.01
4,500-4,999 grams.....	3,342	13	6	2	4	7
Rate.....		*	*	*	*	*
5,000 grams or more.....	452	4	3	2	1	1
Rate.....		*	*	*	*	*
Not stated.....	156	35	35	35	-	-
Rate.....		224.36	224.36	224.36	-	-

See footnotes at end of table.

-/ Quantity zero.

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

1/ Includes races other than white and black.

Documentation Table 5

Live births by birthweight and race of mother and infant deaths and infant mortality rates by age of death, birthweight, and race of mother for 10 major causes of infant death: United States, 2008 birth cohort data

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

Cause of death, birthweight, and race of mother	Live	Total	Early	Late	Post-	
	Births	Infant	Neonatal	Neonatal	Neonatal	Neonatal
All races ¹						
All birthweights						
All causes	4,247,726	27,863 655.95	18,237 429.34	14,644 344.75	3,593 84.59	9,626 226.62
Congenital malformations (Q00-Q99).....		5,644 132.87	3,997 94.10	3,132 73.73	865 20.36	1,647 38.77
Short gestation and low birthweight nec (P07).....		4,750 111.82	4,640 109.23	4,505 106.06	134 3.15	110 2.59
Sudden infant death syndrome (R95).....		2,323 54.69	209 4.92	31 0.73	179 4.21	2,114 49.77
Maternal complications of pregnancy (P01).....		1,774 41.76	1,756 41.34	1,729 40.70	27 0.64	18 *
Complications of placenta, cord, membranes (P02).....		1,067 25.12	1,054 24.81	1,018 23.97	36 0.85	13 *
Respiratory distress of newborn (P22).....		641 15.09	630 14.83	500 11.77	130 3.06	11 *
Accidents (unintentional injures) (V01-X59).....		1,290 30.37	128 3.01	27 0.64	101 2.38	1,162 27.36
Bacterial sepsis of newborn (P36).....		691 16.27	672 15.82	302 7.11	369 8.69	19 *
Diseases of the circulatory system (I00-I99).....		575 13.54	111 2.61	54 1.27	57 1.34	464 10.92
Intrauterine hypoxia, birth asphyxia (P20-P21).....		371 8.73	354 8.33	286 6.73	68 1.60	17 *
All other causes.....		8,737 205.69	4,687 110.34	3,061 72.06	1,626 38.28	4,050 95.35
Less than 2,500 grams						
All causes	348,543	18,862 5,411.67	15,204 4,362.16	12,781 3,666.98	2,422 694.89	3,659 1,049.80
Congenital malformations (Q00-Q99).....		3,363 964.87	2,633 755.43	2,219 636.65	414 118.78	730 209.44
Short gestation and low birthweight nec (P07).....		4,661 1,337.28	4,552 1,306.01	4,421 1,268.42	131 37.59	108 30.99
Sudden infant death syndrome (R95).....		461 132.26	32 9.18	4 *	28 8.03	429 123.08
Maternal complications of pregnancy (P01).....		1,723 494.34	1,707 489.75	1,681 482.29	26 7.46	16 *
Complications of placenta, cord, membranes (P02).....		981 281.46	973 279.16	943 270.55	30 8.61	8 *
Respiratory distress of newborn (P22).....		627 179.89	616 176.74	489 140.30	127 36.44	11 *
Accidents (unintentional injures) (V01-X59).....		212 60.82	31 8.89	12 *	19 *	181 51.93
Bacterial sepsis of newborn (P36).....		584 167.55	568 162.96	241 69.14	327 93.82	16 *
Diseases of the circulatory system (I00-I99).....		287 82.34	61 17.50	36 10.33	25 7.17	226 64.84

See footnotes at end of table.

Documentation Table 5

Live births by birthweight and race of mother and infant deaths and infant mortality rates by age of death, birthweight, and race of mother for 10 major causes of infant death: United States, 2008 birth cohort data -Cont

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

Cause of death, birthweight, and race of mother	Live	Total	Early	Late	Post-	
	Births	Infant	Neonatal	Neonatal	Neonatal	Neonatal
All races ¹						
Intrauterine hypoxia, birth asphyxia (P20-P21).....		236 67.71	234 67.14	190 54.51	44 12.62	2 *
All other causes.....		5,727 1,643.13	3,796 1,089.11	2,546 730.47	1,250 358.64	1,931 554.02
2,500 grams or more						
All causes	3,898,189	8,866 227.44	2,905 74.52	1,737 44.56	1,168 29.96	5,961 152.92
Congenital malformations (Q00-Q99).....		2,275 58.36	1,359 34.86	908 23.29	451 11.57	917 23.52
Short gestation and low birthweight nec (P07).....		36 0.92	34 0.87	32 0.82	2 *	2 *
Sudden infant death syndrome (R95).....		1,860 47.71	176 4.51	26 0.67	151 3.87	1,684 43.20
Maternal complications of pregnancy (P01).....		23 0.59	21 0.54	20 0.51	1 *	2 *
Complications of placenta, cord, membranes (P02).....		76 1.95	71 1.82	65 1.67	6 *	5 *
Respiratory distress of newborn (P22).....		13 *	13 *	10 *	3 *	- -
Accidents (unintentional injures) (V01-X59).....		1,077 27.63	97 2.49	15 *	82 2.10	981 25.17
Bacterial sepsis of newborn (P36).....		106 2.72	103 2.64	61 1.56	42 1.08	3 *
Diseases of the circulatory system (I00-I99).....		289 7.41	51 1.31	18 *	32 0.82	238 6.11
Intrauterine hypoxia, birth asphyxia (P20-P21).....		132 3.39	117 3.00	93 2.39	24 0.62	15 *
All other causes.....		2,978 76.39	863 22.14	489 12.54	374 9.59	2,115 54.26
Not stated birthweight						
All causes	994	135 13,581.49	129 12,977.87	126 12,676.06	3 *	6 *
Congenital malformations (Q00-Q99).....		6 *	5 *	5 *	- -	1 *
Short gestation and low birthweight nec (P07).....		54 5,432.60	54 5,432.60	53 5,331.99	1 *	- -
Sudden infant death syndrome (R95).....		2 *	1 *	1 *	- -	1 *
Maternal complications of pregnancy (P01).....		27 2,716.30	27 2,716.30	27 2,716.30	- -	- -
Complications of placenta, cord, membranes (P02).....		9 *	9 *	9 *	- -	- -
Respiratory distress of newborn (P22).....		1 *	1 *	1 *	- -	- -
Accidents (unintentional injures) (V01-X59).....		- -	- -	- -	- -	- -

See footnotes at end of table.

Documentation Table 5

Live births by birthweight and race of mother and infant deaths and infant mortality rates by age of death, birthweight, and race of mother for 10 major causes of infant death: United States, 2008 birth cohort data -Cont

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

Cause of death, birthweight, and race of mother	Live		Total	Early	Late	Post-
	Births	Infant	Neonatal	Neonatal	Neonatal	Neonatal
All races¹						
Bacterial sepsis of newborn (P36).....	-	-	-	-	-	-
Diseases of the circulatory system (I00-I99).....	-	-	-	-	-	-
Intrauterine hypoxia, birth asphyxia (P20-P21).....	3	3	3	3	-	-
	*	*	*	*	-	-
All other causes.....	32	28	26	2	4	4
	3,219.32	2,816.90	2,615.69	*	*	*
White						
All birthweights						
All causes	3,080,541	16,809	10,951	8,729	2,222	5,858
		545.65	355.49	283.36	72.13	190.16
Congenital malformations (Q00-Q99).....		3,969	2,873	2,251	622	1,095
		128.84	93.26	73.07	20.19	35.55
Short gestation and low birthweight nec (P07).....		2,427	2,370	2,302	67	57
		78.78	76.93	74.73	2.17	1.85
Sudden infant death syndrome (R95).....		1,473	144	24	121	1,329
		47.82	4.67	0.78	3.93	43.14
Maternal complications of pregnancy (P01).....		1,028	1,013	997	16	14
		33.37	32.88	32.36	*	*
Complications of placenta, cord, membranes (P02).....		639	631	605	25	8
		20.74	20.48	19.64	0.81	*
Respiratory distress of newborn (P22).....		370	363	290	74	7
		12.01	11.78	9.41	2.40	*
Accidents (unintentional injuries) (V01-X59).....		826	86	22	63	741
		26.81	2.79	0.71	2.05	24.05
Bacterial sepsis of newborn (P36).....		389	382	179	203	7
		12.63	12.40	5.81	6.59	*
Diseases of the circulatory system (I00-I99).....		345	75	32	42	271
		11.20	2.43	1.04	1.36	8.80
Intrauterine hypoxia, birth asphyxia (P20-P21).....		232	224	186	38	8
		7.53	7.27	6.04	1.23	*
All other causes.....		5,111	2,791	1,840	950	2,321
		165.91	90.60	59.73	30.84	75.34
Less than 2,500 grams						
All causes	219,594	10,766	8,788	7,383	1,405	1,978
		4,902.68	4,001.93	3,362.11	639.82	900.75
Congenital malformations (Q00-Q99).....		2,318	1,868	1,582	286	450
		1,055.58	850.66	720.42	130.24	204.92
Short gestation and low birthweight nec (P07).....		2,380	2,324	2,260	64	56
		1,083.82	1,058.32	1,029.17	29.14	25.50
Sudden infant death syndrome (R95).....		266	22	3	19	244
		121.13	10.02	*	*	111.11
Maternal complications of pregnancy (P01).....		992	980	964	16	12
		451.74	446.28	438.99	*	*

See footnotes at end of table.

Documentation Table 5

Live births by birthweight and race of mother and infant deaths and infant mortality rates by age of death, birthweight, and race of mother for 10 major causes of infant death: United States, 2008 birth cohort data -Cont

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

Cause of death, birthweight, and race of mother	Live	Total	Early	Late	Post-	
	Births	Infant	Neonatal	Neonatal	Neonatal	Neonatal
White						
Complications of placenta, cord, membranes (P02).....	578 263.21	573 260.94	553 251.83	20 9.11	5 *	
Respiratory distress of newborn (P22).....	358 163.03	351 159.84	279 127.05	72 32.79	7 *	
Accidents (unintentional injures) (V01-X59).....	134 61.02	19 *	10 *	9 *	115 52.37	
Bacterial sepsis of newborn (P36).....	316 143.90	311 141.62	134 61.02	177 80.60	5 *	
Diseases of the circulatory system (I00-I99).....	158 71.95	39 17.76	21 9.56	18 *	118 53.74	
Intrauterine hypoxia, birth asphyxia (P20-P21).....	128 58.29	128 58.29	105 47.82	22 10.02	- -	
All other causes.....	3,138 1,429.00	2,173 989.55	1,472 670.33	701 319.23	965 439.45	
2,500 grams or more						
All causes	2,860,433 208.57	5,966 73.00	2,088 44.54	1,274 28.49	815 135.54	3,877 135.54
Congenital malformations (Q00-Q99).....	1,645 57.51	1,001 34.99	665 23.25	336 11.75	644 22.51	
Short gestation and low birthweight nec (P07).....	18 *	17 *	15 *	2 *	1 *	
Sudden infant death syndrome (R95).....	1,206 42.16	121 4.23	19 *	101 3.53	1,086 37.97	
Maternal complications of pregnancy (P01).....	18 *	16 *	16 *	- -	2 *	
Complications of placenta, cord, membranes (P02).....	58 2.03	55 1.92	50 1.75	5 *	3 *	
Respiratory distress of newborn (P22).....	11 *	11 *	9 *	2 *	- -	
Accidents (unintentional injures) (V01-X59).....	692 24.19	67 2.34	12 *	54 1.89	625 21.85	
Bacterial sepsis of newborn (P36).....	73 2.55	71 2.48	45 1.57	26 0.91	2 *	
Diseases of the circulatory system (I00-I99).....	188 6.57	35 1.22	11 *	24 0.84	152 5.31	
Intrauterine hypoxia, birth asphyxia (P20-P21).....	102 3.57	94 3.29	78 2.73	16 *	8 *	
All other causes.....	1,954 68.31	600 20.98	353 12.34	247 8.64	1,354 47.34	
Not stated birthweight						
All causes	514 15,175.10	78 14,591.44	75 14,007.78	72 *	3 *	3 *
Congenital malformations (Q00-Q99).....	5 *	4 *	4 *	- -	1 *	
Short gestation and low birthweight nec (P07).....	28 5,447.47	28 5,447.47	27 5,252.92	1 *	- -	

See footnotes at end of table.

Documentation Table 5

Live births by birthweight and race of mother and infant deaths and infant mortality rates by age of death, birthweight, and race of mother for 10 major causes of infant death: United States, 2008 birth cohort data -Cont

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

Cause of death, birthweight, and race of mother	Live		Total	Early	Late	Post-
	Births	Infant	Neonatal	Neonatal	Neonatal	Neonatal
White						
Sudden infant death syndrome (R95).....		1 *	1 *	1 *	-	-
Maternal complications of pregnancy (P01).....		17 *	17 *	17 *	-	-
Complications of placenta, cord, membranes (P02).....		3 *	3 *	3 *	-	-
Respiratory distress of newborn (P22).....		1 *	1 *	1 *	-	-
Accidents (unintentional injuries) (V01-X59).....		-	-	-	-	-
Bacterial sepsis of newborn (P36).....		-	-	-	-	-
Diseases of the circulatory system (I00-I99).....		-	-	-	-	-
Intrauterine hypoxia, birth asphyxia (P20-P21).....		3 *	3 *	3 *	-	-
All other causes.....		19 *	17 *	15 *	2 *	2 *
Black						
All birthweights						
All causes	647,394	8,030 1,240.36	5,275 814.81	4,249 656.32	1,026 158.48	2,755 425.55
Congenital malformations (Q00-Q99).....		978 151.07	648 100.09	493 76.15	155 23.94	330 50.97
Short gestation and low birthweight nec (P07).....		1,803 278.50	1,757 271.40	1,700 262.59	58 8.96	45 6.95
Sudden infant death syndrome (R95).....		659 101.79	49 7.57	3 *	46 7.11	609 94.07
Maternal complications of pregnancy (P01).....		554 85.57	550 84.96	543 83.87	7 *	4 *
Complications of placenta, cord, membranes (P02).....		312 48.19	308 47.58	298 46.03	10 *	4 *
Respiratory distress of newborn (P22).....		220 33.98	217 33.52	168 25.95	49 7.57	3 *
Accidents (unintentional injuries) (V01-X59).....		361 55.76	35 5.41	5 *	30 4.63	326 50.36
Bacterial sepsis of newborn (P36).....		215 33.21	205 31.67	87 13.44	119 18.38	10 *
Diseases of the circulatory system (I00-I99).....		159 24.56	23 3.55	14 *	9 *	136 21.01
Intrauterine hypoxia, birth asphyxia (P20-P21).....		91 14.06	85 13.13	65 10.04	20 3.09	6 *
All other causes.....		2,679 413.81	1,398 215.94	874 135.00	523 80.79	1,281 197.87
Less than 2,500 grams						
All causes	88,106	6,024 6,837.22	4,726 5,363.99	3,946 4,478.70	780 885.30	1,298 1,473.23

See footnotes at end of table.

Documentation Table 5

Live births by birthweight and race of mother and infant deaths and infant mortality rates by age of death, birthweight, and race of mother for 10 major causes of infant death: United States, 2008 birth cohort data -Cont

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

Cause of death, birthweight, and race of mother	Live	Total	Early	Late	Post-	
	Births	Infant	Neonatal	Neonatal	Neonatal	Neonatal
Black						
Congenital malformations (Q00-Q99).....	597 677.59	433 491.45	354 401.79	79 89.66	164 186.14	
Short gestation and low birthweight nec (P07).....	1,768 2,006.67	1,724 1,956.73	1,666 1,890.90	58 65.83	44 49.94	
Sudden infant death syndrome (R95).....	172 195.22	8 *	- -	8 *	163 185.00	
Maternal complications of pregnancy (P01).....	545 618.57	541 614.03	535 607.22	6 *	4 *	
Complications of placenta, cord, membranes (P02).....	297 337.09	295 334.82	286 324.61	9 *	2 *	
Respiratory distress of newborn (P22).....	219 248.56	216 245.16	167 189.54	49 55.61	3 *	
Accidents (unintentional injures) (V01-X59).....	69 78.31	10 *	2 *	8 *	59 66.96	
Bacterial sepsis of newborn (P36).....	192 217.92	182 206.57	77 87.39	106 120.31	10 *	
Diseases of the circulatory system (I00-I99).....	98 111.23	15 *	11 *	4 *	83 94.20	
Intrauterine hypoxia, birth asphyxia (P20-P21).....	74 83.99	72 81.72	56 63.56	16 *	2 *	
All other causes.....	1,995 2,264.32	1,231 1,397.18	793 900.05	437 495.99	764 867.14	
2,500 grams or more						
All causes	559,162	1,971 352.49	514 91.92	267 47.75	246 43.99	1,457 260.57
Congenital malformations (Q00-Q99).....	380 67.96	214 38.27	137 24.50	76 13.59	166 29.69	
Short gestation and low birthweight nec (P07).....	15 *	14 *	14 *	- -	1 *	
Sudden infant death syndrome (R95).....	487 87.09	41 7.33	3 *	38 6.80	446 79.76	
Maternal complications of pregnancy (P01).....	3 *	3 *	2 *	1 *	- -	
Complications of placenta, cord, membranes (P02).....	12 *	10 *	9 *	1 *	2 *	
Respiratory distress of newborn (P22).....	1 *	1 *	1 *	- -	- -	
Accidents (unintentional injures) (V01-X59).....	292 52.22	25 4.47	3 *	22 3.93	267 47.75	
Bacterial sepsis of newborn (P36).....	23 4.11	23 4.11	10 *	13 *	- -	
Diseases of the circulatory system (I00-I99).....	61 10.91	8 *	3 *	5 *	53 9.48	
Intrauterine hypoxia, birth asphyxia (P20-P21).....	17 *	13 *	9 *	4 *	4 *	
All other causes.....	678 121.25	161 28.79	75 13.41	86 15.38	517 92.46	

See footnotes at end of table.

Documentation Table 5

Live births by birthweight and race of mother and infant deaths and infant mortality rates by age of death, birthweight, and race of mother for 10 major causes of infant death: United States, 2008 birth cohort data -Cont

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

Cause of death, birthweight, and race of mother	Live	Total	Early	Late	Post-	
	Births	Infant	Neonatal	Neonatal	Neonatal	Neonatal
Black						
Not stated birthweight						
All causes	126	35	35	35	-	-
		27,777.78	27,777.78	27,777.78	-	-
Congenital malformations (Q00-Q99).....		1	1	1	-	-
		*	*	*	-	-
Short gestation and low birthweight nec (P07).....		19	19	19	-	-
		*	*	*	-	-
Sudden infant death syndrome (R95).....		-	-	-	-	-
		-	-	-	-	-
Maternal complications of pregnancy (P01).....		6	6	6	-	-
		*	*	*	-	-
Complications of placenta, cord, membranes (P02).....		3	3	3	-	-
		*	*	*	-	-
Respiratory distress of newborn (P22).....		-	-	-	-	-
		-	-	-	-	-
Accidents (unintentional injures) (V01-X59).....		-	-	-	-	-
		-	-	-	-	-
Bacterial sepsis of newborn (P36).....		-	-	-	-	-
		-	-	-	-	-
Diseases of the circulatory system (I00-I99).....		-	-	-	-	-
		-	-	-	-	-
Intrauterine hypoxia, birth asphyxia (P20-P21).....		-	-	-	-	-
		-	-	-	-	-
All other causes.....		6	6	6	-	-
		*	*	*	-	-

-/ Quality zero.
 */Figure does not meet standard of reliability or precision; see Technical notes.
 ^/ Includes races other than white and black.

Documentation Table 6. Unlinked infant deaths by race, age at death, and state of residence: United States and each state, 2008 birth cohort data.

[Infant deaths are under 1 year. Neonatal death are under 28 days; early neonatal, 0-6 days; late neonatal, 7-27 days; and postneonatal, 28 days through 11 months. Data in this table is for infant deaths in 2008 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 1/	Infant	Total neonatal	Early neonatal	Late neonatal	Postneonatal
United States /2					
Total	362	271	250	21	91
White	237	175	160	15	62
Black	102	84	79	5	18
Alabama					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
Alaska					
Total	1	1	1	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
Arizona					
Total	13	7	7	-	6
White	10	6	6	-	4
Black	1	-	-	-	1
Arkansas					
Total	2	2	1	1	-
White	1	1	1	-	-
Black	1	1	-	1	-
California					
Total	72	60	58	2	12
White	52	43	41	2	9
Black	15	14	14	-	1
Colorado					
Total	2	2	2	-	-
White	2	2	2	-	-
Black	-	-	-	-	-
Connecticut					
Total	1	-	-	-	1
White	1	-	-	-	1
Black	-	-	-	-	-
Delaware					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
Dist of Columbia					
Total	1	1	1	-	-
White	-	-	-	-	-
Black	1	1	1	-	-
Florida					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
Georgia					
Total	20	20	10	10	-
White	8	8	4	4	-
Black	12	12	6	6	-
Hawaii					
Total	1	-	-	-	1
White	-	-	-	-	-
Black	-	-	-	-	-

Documentation Table 6. Unlinked infant deaths by race, age at death, and state of residence: United States and each state, 2008 birth cohort data.

[Infant deaths are under 1 year. Neonatal death are under 28 days; early neonatal, 0-6 days; late neonatal, 7-27 days; and postneonatal, 28 days through 11 months. Data in this table is for infant deaths in 2008 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 1/	Infant	Total neonatal	Early neonatal	Late neonatal	Postneonatal
Idaho					
Total	3	1	1	-	2
White	3	1	1	-	2
Black	-	-	-	-	-
Illinois					
Total	14	12	10	2	2
White	8	7	6	1	1
Black	6	5	4	1	1
Indiana					
Total	2	1	1	-	1
White	1	-	-	-	1
Black	1	1	1	-	-
Iowa					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
Kansas					
Total	2	-	-	-	2
White	2	-	-	-	2
Black	-	-	-	-	-
Kentucky					
Total	2	2	2	-	-
White	2	2	2	-	-
Black	-	-	-	-	-
Louisiana					
Total	28	22	19	3	6
White	13	11	8	3	2
Black	14	10	10	-	4
Maine					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
Maryland					
Total	2	2	2	-	-
White	1	1	1	-	-
Black	-	-	-	-	-
Massachusetts					
Total	1	1	1	-	-
White	1	1	1	-	-
Black	-	-	-	-	-
Michigan					
Total	3	3	3	-	-
White	2	2	2	-	-
Black	1	1	1	-	-
Minnesota					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
Mississippi					
Total	3	1	-	1	2
White	1	-	-	-	1
Black	2	1	-	1	1

Documentation Table 6. Unlinked infant deaths by race, age at death, and state of residence: United States and each state, 2008 birth cohort data.

[Infant deaths are under 1 year. Neonatal death are under 28 days; early neonatal, 0-6 days; late neonatal, 7-27 days; and postneonatal, 28 days through 11 months. Data in this table is for infant deaths in 2008 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 1/	Infant	Total neonatal	Early neonatal	Late neonatal	Postneonatal
Missouri					
Total	5	3	3	-	2
White	4	2	2	-	2
Black	1	1	1	-	-
Montana					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
Nebraska					
Total	1	1	1	-	-
White	1	1	1	-	-
Black	-	-	-	-	-
Nevada					
Total	6	5	2	3	1
White	6	5	2	3	1
Black	-	-	-	-	-
New Hampshire					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
New Jersey					
Total	6	6	6	-	-
White	3	3	3	-	-
Black	3	3	3	-	-
New Mexico					
Total	14	6	4	2	8
White	12	5	4	1	7
Black	-	-	-	-	-
New York					
Total	2	1	-	1	1
White	1	-	-	-	1
Black	1	1	-	1	-
New York City					
Total	3	3	3	-	-
White	1	1	1	-	-
Black	1	1	1	-	-
North Carolina					
Total	1	-	-	-	1
White	1	-	-	-	1
Black	-	-	-	-	-
North Dakota					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
Ohio					
Total	16	10	10	-	6
White	6	2	2	-	4
Black	10	8	8	-	2
Oklahoma					
Total	10	7	7	-	3
White	2	2	2	-	-
Black	4	3	3	-	1

Documentation Table 6. Unlinked infant deaths by race, age at death, and state of residence: United States and each state, 2008 birth cohort data.

[Infant deaths are under 1 year. Neonatal death are under 28 days; early neonatal, 0-6 days; late neonatal, 7-27 days; and postneonatal, 28 days through 11 months. Data in this table is for infant deaths in 2008 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 1/	Infant	Total neonatal	Early neonatal	Late neonatal	Postneonatal
Oregon					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
Pennsylvania					
Total	2	1	1	-	1
White	1	1	1	-	-
Black	1	-	-	-	1
Rhode Island					
Total	1	-	-	-	1
White	-	-	-	-	-
Black	-	-	-	-	-
South Carolina					
Total	1	-	-	-	1
White	1	-	-	-	1
Black	-	-	-	-	-
South Dakota					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
Tennessee					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
Texas					
Total	111	94	88	6	17
White	81	68	63	5	13
Black	27	25	24	1	2
Utah					
Total	4	-	-	-	4
White	2	-	-	-	2
Black	1	-	-	-	1
Vermont					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
Virginia					
Total	6	5	5	-	1
White	4	3	3	-	1
Black	2	2	2	-	-
Washington					
Total	2	-	-	-	2
White	2	-	-	-	2
Black	-	-	-	-	-
West Virginia					
Total	1	1	1	-	-
White	1	1	1	-	-
Black	-	-	-	-	-
Wisconsin					
Total	1	-	-	-	1
White	-	-	-	-	-
Black	1	-	-	-	1

Documentation Table 6. Unlinked infant deaths by race, age at death, and state of residence: United States and each state, 2008 birth cohort data.

[Infant deaths are under 1 year. Neonatal death are under 28 days; early neonatal, 0-6 days; late neonatal, 7-27 days; and postneonatal, 28 days through 11 months. Data in this table is for infant deaths in 2008 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 1/	Infant	Total neonatal	Early neonatal	Late neonatal	Postneonatal
Wyoming					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
Puerto Rico					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
Virgin Islands					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-
Guam					
Total	-	-	-	-	-
White	-	-	-	-	-
Black	-	-	-	-	-

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

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