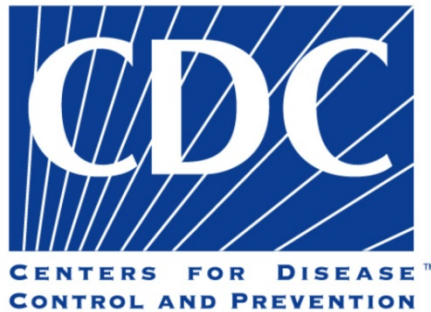


**User Guide  
to the  
2011 Natality  
Public Use File**





## 2011 Natality Detail Data Set

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7. Births: Final Data for 2011
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## **User Guide to the 2011 Natality Public Use File**

### *Introduction*

United States birth data available in this file represent all births registered in the 50 States, the District of Columbia, and New York City. The Centers for Disease Control and Prevention's National Center for Health Statistics (NCHS) receives these data as electronic files, prepared from individual records processed by each registration area, through the Vital Statistics Cooperative Program.

Birth data for the U.S. are limited to births occurring within the United States to U.S. residents and nonresidents. Births to nonresidents of the United States are excluded from all tabulations by place of residence. Births occurring to U.S. citizens outside of the United States are not included in this file. For more detailed information on the 2011 Natality file see the "Detailed Technical Notes – Natality: United States, 2011" in this User Guide.

### Availability of Geographic Detail

Beginning with the 2005 data year, the U.S. micro-data natality file no longer includes geographic detail (e.g., mother's state of residence). Tabulations of birth data by residence of mother for states and for counties with populations of 100,000 or more are available using the VitalStats online data access tool described below. Certain geographic level data may also be available upon request: See "NCHS Data Release and Access Policy for Microdata and Compressed Vital Statistics Files," available at:

[http://www.cdc.gov/nchs/nvss/dvs\\_data\\_release.htm](http://www.cdc.gov/nchs/nvss/dvs_data_release.htm).

The territories file, which includes data on births occurring in Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Marianas Islands, includes limited geographical detail. Information identifying individual territories and counties (or their equivalent) with populations of 100,000 or more by place of occurrence and residence are available in this file.

### VitalStats

VitalStats is an online data access tool which provides access to a collection of interactive pre-built tables, and the ability to build tables from over 100 public use birth variables including limited geographic detail. Interactive charting and mapping tools are a key part of the system, and provide powerful options for visualizing and manipulating tabulated data. Tabulated data

can be exported to Excel for further analysis. VitalStats is available at:

<http://www.cdc.gov/nchs/VitalStats.htm>.

### ***The 1989 and 2003 Revisions of the U.S. Certificate of Live Birth***

This data file includes data based on both the 1989 Revision of the U.S. Standard Certificate of Live Birth (unrevised) and the 2003 revision of the U.S. Standard Certificate of Live Birth (revised). However, in general only data comparable between the 1989 and 2003 revisions and data exclusive to the 2003 revision are included. The 2003 revision is described in detail elsewhere. (See the 2003 Revision website at:

[http://www.cdc.gov/nchs/nvss/vital\\_certificate\\_revisions.htm](http://www.cdc.gov/nchs/nvss/vital_certificate_revisions.htm).) Thirty-six states, the District of Columbia, Puerto Rico, and the Northern Marianas had implemented the revised birth certificate as of January 1, 2011: California, Colorado, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Washington, Wisconsin and Wyoming. Two additional reporting States, Massachusetts and Minnesota, and one territory, Guam, implemented the revised birth certificate in 2011, but after January 1. The 36 revised states and the District of Columbia (excluding Puerto Rico and the Northern Marianas) represent 83 percent of births to U.S. residents. Where comparable, revised data are combined with data from the remaining 14 unrevised states. (Data from revised states are denoted by “R;” data from unrevised states are denoted by “U” in the “Rev” column of the file layout.) Also see discussion of reporting flags. Selected items new to the 2003 Revision are included in this data file. Tables presenting these data are not shown in “Births: Final Data for 2011” [1] but are included in this guide; see **Documentation Table 1** to **Documentation Table 19**. For 2010, this information can be found in **Documentation Tables 1** through **11** of the 2010 User Guide [2]. For 2009, this information can be found in **Documentation Tables 1** through **8** of the 2009 User Guide [3]. Data for 2007 and 2008 are contained in the 2007 User Guide [4] and in an NCHS report for 2008 [5]. For further information please contact us at [births@cdc.gov](mailto:births@cdc.gov) or (301)458-4111.

Beginning with the 2007 data year, data items exclusive to the 1989 (i.e., maternal anemia, ultrasound, alcohol use) are no longer available in public use files.

## ***Incomplete National Reporting: Selecting reporting areas for the 2011 natality file***

### The use of reporting flags

As a result of the delayed, phased transition to the 2003 Standard Certificate of Live Births, the 2011 natality 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). Reporting flags were developed to help the user identify those records (i.e. births) to residents of all reporting areas collecting the specified item in a comparable form. These reporting flags are available for all items from the 2003 certificate revision for which the data are not national. Reporting flags are also used to include those areas that collect the data with sufficient data quality. For example, in 2011 for Delaware, several data items were flagged as “not reporting” because they were not collected with sufficient accuracy to be considered reliable. For a list of the items with state-specific reporting flags, see the footnotes of Table B. See also more information on specific data quality issues in the Quality of Data section of the Technical Notes . The national reporting area is defined as the 50 States, the District of Columbia, and New York City; (NYC is an independent reporting area from New York State). 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.

### Translating “blanks”

In the 2011 natality file, for the items in the revised area which are not common or comparable across certificate revisions, births to residents of a revised state occurring in an unrevised state are represented by “blanks” (total of 0.3 percent of births for the revised area). Blanks should be treated as “unknowns” for tabulation.

In sum, the correct use of reporting flags and translation of blanks will result in an accurate tally of births for items with incomplete national reporting. For an example of SAS code that may be used to incorporate the correct use of reporting flags and the translation of blanks see the Introduction 2010 User Guide [2].

## *References*

1. Martin JA, Hamilton BE, Ventura SJ, Osterman MJK, Mathews TJ. Births: Final Data for 2011. National vital statistics reports; vol 62 no 1. Hyattsville, MD: National Center for Health Statistics. 2013. Available at: [http://www.cdc.gov/nchs/data/nvsr/nvsr62/nvsr62\\_01.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr62/nvsr62_01.pdf)
2. National Center for Health Statistics. User Guide to the 2010 Natality Public Use File. Hyattsville, Maryland: National Center for Health Statistics. Annual product 2012. Available for downloading at: [http://www.cdc.gov/nchs/data\\_access/VitalStatsOnline.htm](http://www.cdc.gov/nchs/data_access/VitalStatsOnline.htm).
3. National Center for Health Statistics. User Guide to the 2009 Natality Public Use File. Hyattsville, Maryland: National Center for Health Statistics. Annual product 2011. Available for downloading at: [http://www.cdc.gov/nchs/data\\_access/VitalStatsOnline.htm](http://www.cdc.gov/nchs/data_access/VitalStatsOnline.htm).
4. National Center for Health Statistics. User Guide to the 2007 Natality Public Use File. Hyattsville, Maryland: National Center for Health Statistics. Annual product 2011. Available for downloading at: [http://www.cdc.gov/nchs/data\\_access/VitalStatsOnline.htm](http://www.cdc.gov/nchs/data_access/VitalStatsOnline.htm).
5. Osterman MJK, Martin JA, Mathews TJ, Hamilton BE. Expanded data from the new birth certificate, 2008. National vital statistics reports; vol 59 no 7. Hyattsville, MD: National Center for Health Statistics. 2011.





**2011 Natality**  
**Machine / File / Data Characteristics**

All Files:

Record format: Fixed Format

Code scheme: Numeric/Alphabetic/Blank

Record length: 775

	<u>United States</u>	<u>Territories</u>
All births:		
Record count:	3,961,220	48,260
By occurrence:	3,961,220	48,260
By residence:	3,953,590	48,154
To foreign residents:	7,630	106



## 2011 LIST OF DATA ELEMENTS AND LOCATIONS

<u>Data Items</u>	<u>Locations</u>
1. General	
a) Data year	15-18
b) Resident status	138
2. Prenatal Care	
a) Month began	245-247, 256-259
b) Number of visits	270-273
3. Child	
a) Sex	436-437
b) Number at delivery	423, 425
c) Birthweight	463-466, 471-473
d) Apgar score	415-420
e) Gestation	451-457
f) Year/month of birth	15-20
g) Time of birth	25-28
h) Day of week of birth	29
4. Mother	
a) Age	89-93
b) Race	139-144
c) Marital status	153
d) Education	155-158
e) Hispanic origin	148-149
5. Pregnancy History	
a) Total birth order	217
b) Live birth order	212
c) Birth interval	534-538
6. Father	
a) Age	184-187
b) Race	188-191, 199-200
c) Hispanic origin	195-196
d) Education	197
7. Other Items	
a) Residence reporting flags	569-771
b) Attendant at birth	410

c) Place of delivery	41-42
d) WIC receipt	281
e) Source of payment	412-413
8. Medical and Health Data	
a) Method of delivery	390-403
b) Medical risk factors	313-337
c) Other risk factors	
i. Tobacco	282-294
ii. Mother's pre-pregnancy body mass index (BMI)	303-304
iii. Weight gain during pregnancy	276-278
d) Maternal infections	345-350
e) Obstetric procedures	351-361
f) Onset of labor	362-364
g) Complications/characteristics of labor and/or delivery	365-389
h) Maternal morbidity	404-409
i) Abnormal conditions of the newborn	476-482
j) Congenital anomalies	492-525
k) Infant breastfed	528

2011  
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Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
1-6	6	FILLER	<b>Filler</b>			Blank	
7	1	REVISION	<b>Revision</b>		U,R	A S	Data based on the 2003 revision of the US Standard Birth Certificate (Revised) Data based on the 1989 revision of the US Standard Birth Certificate (Unrevised)
8-14	7	FILLER	<b>Filler</b>			Blank	
15-18	4	DOB_YY	<b>Birth Year</b>		U,R	2011	Year of birth
19-20	2	DOB_MM	<b>Birth Month</b>		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	<b>Filler</b>			Blank	
25-28	4	DOB_TT	<b>Birth Time</b>	571	R	0000-2359 9999	Time of Birth Not Stated
29	1	DOB_WK	<b>Weekday</b>		U,R	1 2 3 4 5 6 7	Sunday Monday Tuesday Wednesday Thursday Friday Saturday
30-31	2	OTERR	<b>Occurrence Territory</b> <i>(This item is available in the territory file only, geographic codes are not available in the U.S. file)</i>		U,R		

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

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

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Public Use –Nativity File Record Layout

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
						AS GU MP PR VI	American Samoa Guam Northern Marianas Puerto Rico Virgin Islands
			<u>Outlying Areas of the United States</u>				
32-36	5	FILLER	<b>Filler</b>			Blank	
37-39	3	OCNTY	<b>Occurrence County</b> <i>(This item is available in the territory file only, geographic codes are not available in the U.S. file)</i>		U,R		
			<u>Puerto Rico</u>			021 025 031 097 113 127 999	Bayamo'n Caguas Carolina Mayaguez Ponce San Juan County of less than 100,000
			<u>Other Outlying Areas of the United States</u>			000 999	No county level geography County of less than 100,000
40	1	OCNTYPOP	<b>Occurrence County Pop</b> <i>(This item is available in the territory file only, geographic codes are not available in the U.S. file)</i>		U,R	0 1 2 3 9	County of 1,000,000 or more County of 500,000 to 1,000,000 County of 250,000 to 500,000 County of 100,000 to 250,000 County less than 100,000
41	1	BFACIL	<b>Birth Place</b>	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	<b>Birth Place</b>		U,R	1 2	Hospital Freestanding Birthing Center
*U,R			Includes data based on both the 1989 Revision of the U.S. Certificate of Live Birth (unrevised), and the 2003 Revision of the U.S. Certificate of Live Birth (revised).				
U			Includes data based on the 1989 Revision of the U.S. Certificate of Live Birth; excludes data based on the 2003 Revision.				
R			Includes data based on the 2003 Revision of the U.S. Certificate of Live Birth; excludes data based on the 1989 Revision.				

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Public Use –Nativity File Record Layout

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
						3	Clinic / Doctor's Office
						4	Residence
						5	Other
						9	Unknown
43-58	16	FILLER	<b>Filler</b>			Blank	
59	1	BFACIL3	<b>Birth Place Recode</b>		U,R	1	In Hospital
						2	Not in Hospital
						3	Unknown or Not Stated
60-86	27	FILLER	<b>Filler</b>			Blank	
87	1	MAGE_IMPFLG	<b>Mother's Age Imputed</b>		U,R	Blank	Age not imputed
						1	Age imputed
88	1	MAGE_REPFLG	<b>Reported Age of Mother Flag</b>		U,R	Blank	Reported age not used
						1	Reported age used
89-90	2	MAGER	<b>Mother's Single Year of Age</b>		U,R	12	10-12 years
						13	13 years
						14	14 years
						15	15 years
						16	16 years
						17	17 years
						18	18 years
						19	19 years
						20	20 years
						21	21 years
						22	22 years
						23	23 years
						24	24 years
						25	25 years
						26	26 years
						27	27 years
						28	28 years
						29	29 years
						30	30 years
						31	31 years
						32	32 years

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

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Public Use –Nativity File Record Layout

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
						33	33 years
						34	34 years
						35	35 years
						36	36 years
						37	37 years
						38	38 years
						39	39 years
						40	40 years
						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**
			** Includes births to women aged 50 to 64 years.				
91-92	2	MAGER14	<b>Mother's Age Recode 14</b>		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**
			** Includes births to women aged 50 to 64 years.				
93	1	MAGER9	<b>Mother's Age Recode 9</b>		U,R	1	Under 15 years
						2	15-19 years
						3	20-24 years
						4	25-29 years
						5	30-34 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 the 1989 Revision of the U.S. Certificate of Live Birth; excludes data based on the 2003 Revision.

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Public Use –Nativity File Record Layout

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
						6	35-39 years
						7	40-44 years
						8	45-49 years
						9	50-54 years**
			** Includes births to women aged 50 to 64 years.				
94-95	2	MBCNTRY	<b>Mother's Birth Country</b> <i>(This item is available in the territory file only, geographic codes are not available in the U.S. file)</i>		U,R	AA-ZZ	A complete list of countries is shown in the Geographic Code Outline, which follows the record layout.
						YY	Unspecified foreign country
						ZZ	Not classifiable
96-108	13	FILLER	<b>Filler</b>			Blank	
109-110	2	MRTERR	<b>Mother's Residence Territory/Possession</b> <i>(This item is available in the territory file only, geographic codes are not available in the U.S. file)</i> <u>Outlying Areas of the United States</u>		U,R	AS	American Samoa
						GU	Guam
						MP	Northern Marianas
						PR	Puerto Rico
						VI	Virgin Islands
						US	United States (births to residents of the 50 states or DC)
						XX	Not Applicable
						ZZ	Not Classifiable
111-113	3	FILLER	<b>Filler</b>			Blank	
114-116	3	MRCNTY	<b>Mother's County of Residence</b> <i>(This item is available in the territory file only, geographic codes are not available in the U.S. file)</i> <u>Puerto Rico</u>		U,R	021	Bayamo'n
						025	Caguas
						031	Carolina
						097	Mayaguez
						113	Ponce
						127	San Juan
						999	County of less than 100,000 population or foreign resident

\*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
						000 999	No county level geography County of less than 100,000 population or foreign resident
117-131	15	FILLER	<b>Filler</b>			Blank	
132	1	RCNTY_POP	<b>Population of Residence County</b> <i>(This item is available in the territory file only, geographic codes are not available in the U.S. file)</i>		U,R	0 1 2 3 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 100,000 to 250,000 County less than 100,000 Foreign resident
133-136	4	FILLER	<b>Filler</b>			Blank	
137	1	RECTYPE	<b>Record Type</b> <i>(This item is available in the territory file only, geographic codes are not available in the U.S. file)</i>		U,R	1 2	RESIDENT: Territory and county of occurrence and residence are the same. NONRESIDENT: Territory and county of occurrence and residence are different.
138	1	RESTATUS	<b>Residence Status</b> <u>United States</u>		U,R	1 2 3 4	RESIDENT: State and county of occurrence and residence are the same. INTRASTATE NONRESIDENT: State of occurrence and residence are the same but county is different. INTERSTATE NONRESIDENT: State of occurrence and residence are different but both are one of the 50 US states or District of Columbia. FOREIGN RESIDENT: The state of residence is not one of the 50 US states or District of Columbia.
			<u>Outlying Areas of the United States</u>			1 2 3 4	RESIDENT: State and county of occurrence and residence are the same. (Unique to Guam, all US residents are considered residents of Guam and thus are assigned 1.) INTRATERRITORY NONRESIDENT: Territory of occurrence and residence are the same but county is different. INTERTERRITORY RESIDENT: Territory of occurrence and residence are different but both are US Territories. FOREIGN RESIDENT: The residence is not a US Territory.

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

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

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Public Use –Nativity File Record Layout

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
139-140	2	MBRACE	<p><b>Mother’s Bridged Race</b> 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.”</p> <p>** Also includes unrevised states that report multiple race.</p>		R**	01 02 03 04 05 06 07 08 09 10 11 12 13 14 21 22 23 24 Blank	<p>White – single race Black – single race American Indian / Alaskan Native – single race Asian Indian – single race 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 / Alaskan Native – bridged multiple race Asian / Pacific Islander – bridged multiple race Not on certificate</p>
141-142	2	MRACE	<p><b>Mother’s Race</b> Includes only states exclusively reporting single race. Some areas report additional Asian or Pacific Islander (API) codes for race. Codes 18-68 replace old code 08 for these areas. Code 78 replaces old code 08 for all other areas. See reporting flag at pos.650 for expanded API reporting area.</p> <p style="padding-left: 40px;"><u>United States</u></p>		U	01 02 03 04 05 06 07 18 28 38 48 58	<p>White Black American Indian / Alaskan Native Chinese Japanese Hawaiian (includes part Hawaiian) Filipino Asian Indian Korean Samoan Vietnamese Guamanian</p>
*U,R			Includes data based on both the 1989 Revision of the U.S. Certificate of Live Birth (unrevised), and the 2003 Revision of the U.S. Certificate of Live Birth (revised).				
U			Includes data based on the 1989 Revision of the U.S. Certificate of Live Birth; excludes data based on the 2003 Revision.				
R			Includes data based on the 2003 Revision of the U.S. Certificate of Live Birth; excludes data based on the 1989 Revision.				

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Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
						68	Other Asian / Pacific Islander in areas reporting codes 18-58.
						78	Combined other Asian / Pacific Islander, includes 18-68 for areas that do not report them separately.
						Blank	Not on certificate
			<u>Puerto Rico</u>			01	White
						02	Black
						00	Other races
						Blank	Not on certificate
			<u>Guam</u>			01	White
						02	Black
						03	American Indian / Alaskan Native
						04	Chinese
						05	Japanese
						06	Hawaiian (includes part Hawaiian)
						07	Filipino
						08	Other Asian or Pacific Islander
						58	Gumanian
						Blank	Not on certificate
			<u>All other Outlying Areas of the United States</u>			01	White
						02	Black
						03	American Indian / Alaskan Native
						04	Chinese
						05	Japanese
						06	Hawaiian (includes part Hawaiian)
						07	Filipino
						08	Other Asian or Pacific Islander
						Blank	Not on certificate
143	1	MRACEREC	<b>Mother's Race Recode</b> 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	White
						2	Black
						3	American Indian / Alaskan Native
						4	Asian / Pacific Islander
*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 the 2003 Revision of the U.S. Certificate of Live Birth; excludes data based on the 1989 Revision.				

2011  
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Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
			<u>Puerto Rico</u>			1 2 0	White Black Other (not classified as White or Black)
144	1	MRACEIMP	<b>Mother's Race Imputed Flag</b>		U,R	Blank 1 2	Mother's race not imputed Unknown race imputed All other races, formerly coded 09, imputed.
145-147	3	FILLER	<b>Filler</b>			Blank	
148	1	UMHISP	<b>Mother's Hispanic Origin</b>	569	U,R	0 1 2 3 4 5 9	Non-Hispanic Mexican Puerto Rican Cuban Central or South American Other and Unknown Hispanic Origin unknown or not stated
149	1	MRACEHISP	<b>Mother's Race/Hispanic Origin</b>	569	U,R	1 2 3 4 5 6 7 8 9	Mexican Puerto Rican Cuban Central or South American Other and Unknown Hispanic Non-Hispanic White Non-Hispanic Black Non-Hispanic Other Races Origin unknown or not stated
150-151	2	FILLER	<b>Filler</b>			Blank	
152	1	MAR_P	<b>Paternity Acknowledged</b>	653	R	Y N U X	Yes No Unknown Not Applicable
153	1	MAR	<b>Mother's Marital Status</b>		U,R	1 2	Yes No
			<u>United States and all Outlying Areas of the United States except Puerto Rico</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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2011  
Public Use –Nativity File Record Layout

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
						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	<b>Mother's Marital Status Imputed Flag</b>		U,R	Blank 1	Marital Status not imputed Marital Status imputed
155	1	MEDUC	<b>Mother's Education</b>	571	R	1 2 3 4 5 6 7 8 9 Blank	8 <sup>th</sup> grade or less 9 <sup>th</sup> through 12 <sup>th</sup> grade with no diploma High school graduate or GED completed Some college credit, but not a degree Associate degree (AA, AS) Bachelor's degree (BA, AB, BS) Master's degree (MA, MS) Doctorate (PHD, EdD) or Professional Degree (MD, DDS, DVM, LLB, JD) Unknown Not on certificate
156-174	19	FILLER	<b>Filler</b>			Blank	
175	1	FAGERPT_FLG	<b>Father's Reported Age Used</b>		U,R	Blank 1	Father's reported age not used Father's reported age used
176-181	6	FILLER	<b>Filler</b>			Blank	
182-183	2	FAGECOMB	<b>Father's Combined Age (Revised)</b>	571	R	09-98 99 Blank	Father's combined age in years Unknown or not stated Not on certificate
184-185	2	UFAGECOMB	<b>Father's Combined Age</b>		U,R	10-98 99	Father's combined age in years Unknown or not stated
186-187	2	FAGEREC11	<b>Father's Age Recode 11</b>		U,R	01 02 03 04	Under 15 years 15-19 years 20-24 years 25-29 years

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2011  
Public Use –Nativity File Record Layout

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
						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	<b>Father's Bridged Race</b> 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."  ** Also includes unrevised states that report multiple race.		R**	01 02 03 04 05 06 07 08 09 10 11 12 13 14 21 22 23 24 99  Blank	White – single race Black – single race American Indian / Alaskan Native – single race Asian Indian – single race 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 / Alaskan Native – bridged multiple race Asian / Pacific Islander – bridged multiple race Unknown or not stated, also includes states not reporting multiple race. Not on certificate
190	1	FILLER	<b>Filler</b>			Blank	Blank
191	1	FRACEREC	<b>Father's Race Recode</b> Includes individuals reporting only one race and individuals reporting more than one race bridged to a single race.  <u>United States and all Outlying Areas of the United States except Puerto Rico</u>		U,R	1 2 3 4	White Black American Indian / Alaskan Native Asian / Pacific Islander

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2011  
Public Use –Nativity File Record Layout

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
						9	Unknown or not stated
			<u>Puerto Rico</u>			1	White
						2	Black
						9	Unknown or not stated
						0	Other (not classified as White or Black)
192-194	3	FILLER	<b>Filler</b>			Blank	
195	1	UFHISP	<b>Father's Hispanic Origin</b>	570	U,R	0	Non-Hispanic
						1	Mexican
						2	Puerto Rican
						3	Cuban
						4	Central American
						5	Other and Unknown Hispanic
						9	Origin unknown or not stated
196	1	FRACEHISP	<b>Father's Race/Hispanic Origin</b>	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	1	FEDUC	<b>Father's Education</b>	572	R	1	8 <sup>th</sup> grade or less
						2	9 <sup>th</sup> through 12 <sup>th</sup> 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
198	1	FILLER	<b>Filler</b>			Blank	

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2011  
Public Use –Nativity File Record Layout

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
199-200	2	FRACE	<b>Father's Race</b>		U		
			<u>United States</u>			01	White
						02	Black
						03	American Indian / Alaskan 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 / Pacific Islander in areas reporting codes 18-58.
						78	Combined other Asian / 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
						02	Black
						00	Other races
						99	Unknown or not stated
						Blank	Not on certificate
			<u>Guam</u>			01	White
						02	Black
						03	American Indian / Alaskan Native
						04	Chinese
						05	Japanese
						06	Hawaiian (includes part Hawaiian)
						07	Filipino
						08	Other Asian or Pacific Islander
						58	Gumanian
						99	Unknown or not stated
						Blank	Not on certificate
			<u>All other Outlying Areas of the United States</u>			01	White
						02	Black

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2011  
Public Use –Natality File Record Layout

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
						03	American Indian / Alaskan 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
201-207	7	FILLER	<b>Filler</b>			Blank	
208-209	2	PRIORTERM	<b>Prior Other Terminations</b>		U,R	00-30 99	Number other terminations Unknown or not stated
210-211	2	FILLER	<b>Filler</b>			Blank	
212	1	LBO_REC	<b>Live Birth Order Recode</b>		U,R	1-7 8 9	Live birth order Live birth order of 8 or more Unknown or not stated
213-216	4	FILLER	<b>Filler</b>			Blank	
217	1	TBO_REC	<b>Total Birth Order Recode</b>		U,R	1-7 8 9	Total birth order Total birth order of 8 or more Unknown or not stated
218-244	37	FILLER	<b>Filler</b>			Blank	
243-244	2	ILPCV_DOB	<b>Interval Between Last Prenatal Care Visit &amp; Date of Delivery</b>				
				700	R	00-97 98 99	Days between last prenatal care visit and date of delivery 98 days and above Unknown or not stated
245-246	2	PRECARE	<b>Month Prenatal Care Began</b>				
				668	R	00 01-10 99 Blank	No prenatal care Month prenatal care began Unknown or not stated Not on certificate

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2011  
Public Use –Nativity File Record Layout

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
247	1	PRECARE_REC	<b>Month Prenatal Care Began Recode</b>	668	R	1 2 3 4 5 Blank	1 <sup>st</sup> to 3 <sup>rd</sup> month 4 <sup>th</sup> to 6 <sup>th</sup> month 7 <sup>th</sup> to final month No prenatal care Unknown or not stated Not on certificate
248-269	22	FILLER	<b>Filler</b>			Blank	
270-271	2	UPREVIS	<b>Number of Prenatal Visits</b>	671	U,R	00-49 99	Number of prenatal visits Unknown or not stated
272-273	2	PREVIS_REC	<b>Number of Prenatal Visits Recode</b>	671	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	<b>Filler</b>			Blank	
276-277	2	WTGAIN	<b>Weight Gain</b>	648	U,R	00-97 98 99	Weight gain in pounds 98 pounds and over Unknown or not stated
278	1	WTGAIN_REC	<b>Weight Gain Recode</b>	648	U,R	1 2 3 4 5 9	Less than 11 pounds 11 to 20 pounds 21 to 30 pounds 31 to 40 pounds 41 to 98 pounds Unknown or not stated
279	1	FILLER	<b>Filler</b>			Blank	

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Public Use –Nativity File Record Layout

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
280	1	DFPC_IMP	<b>Day of Date First Prenatal Care Imputed</b>		R	Blank 1	Day of date first prenatal care not imputed Day of date first prenatal care imputed
281	1	WIC	<b>WIC</b>	579	R	Y N U	Yes No Unknown or not stated
282-283	2	CIG_0	<b>Cigarettes Before Pregnancy</b>	575	R	00-97 98 99	Number of cigarettes daily 98 or more cigarettes daily Unknown or not stated
284-285	2	CIG_1	<b>Cigarettes 1<sup>st</sup> Trimester</b>	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	<b>Cigarettes 2<sup>nd</sup> Trimester</b>	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	<b>Cigarettes 3<sup>rd</sup> Trimester</b>	575	R	00-97 98 99 Blank	Number of cigarettes daily 98 or more cigarettes daily Unknown or not stated Not on certificate
290-293	4	FILLER	<b>Filler</b>			Blank	
294	1	CIG_REC	<b>Cigarette Recode</b>	575	R	Y N U Blank	Yes No Unknown or not stated Not on certificate
295-312	18	FILLER	<b>Filler</b>			Blank	
313-319	9	<b><u>Risk Factors (Revised)</u></b> The checkbox items below follow this code structure:				Y N	Yes No

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Public Use –Nativity File Record Layout

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
						U Blank	Unknown or not stated Not on certificate
313	1	RF_DIAB	<b>Prepregnancy Diabetes</b>	582	R		
314	1	RF_GEST	<b>Gestational Diabetes</b>	583	R		
315	1	RF_PHYP	<b>Prepregnancy Hypertension</b>				
				584	R		
316	1	RF_GHYP	<b>Gestational Hypertension</b>	585	R		
317	1	RF_ECLAM	<b>Eclampsia</b>	586	R		
318	1	RF_PPTERM	<b>Previous Preterm Birth</b>	587	R		
319	1	RF_PPOUTC	<b>Poor Pregnancy Outcome</b>	588	R		
320	1	FILLER	<b>Filler</b>				
321	1	RF_INFTR	<b>Infertility Treatment</b>	590	R		
322	1	RF_FEDRG	<b>Fertility Enhancing Drugs</b>	591	R	Y N X U	Yes No Not applicable Unknown or not stated
323	1	RF_ARTEC	<b>Asst. Reproductive Technology</b>	592	R	Y N X U	Yes No Not applicable Unknown or not stated
324	1	RF_CESAR	<b>Previous Cesarean Deliveries</b>	593	R	Y N U Blank	Yes No Unknown or not stated Not on certificate
325-326	2	RF_CESARN	<b>Number of Previous Cesarean Deliveries</b>	594	R	00 01-30 99 Blank	None Number of previous cesareans Unknown or not stated Not on certificate
327	1	FILLER	<b>Filler</b>			Blank	

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Public Use –Nativity File Record Layout

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
328-344	17	<b><u>Risk Factors</u></b> The checkbox items below follow this structure: The version is all 1989 Standard unless otherwise noted.				1 2 9 Blank	Yes No Unknown Not on certificate
328-330	3	FILLER	<b>Filler</b>				
331	1	URF_DIAB	<b>Diabetes</b>	684	U,R		
332-334	3	FILLER	<b>Filler</b>				
335	1	URF_CHYPER	<b>Chronic Hypertension</b>	688	U,R		
336	1	URF_PHYPER	<b>Pregnancy Associated Hypertension</b>	689	U,R		
337	1	URF_ECLAM	<b>Eclampsia</b>	690	U,R		
338-344	7	FILLER	<b>Filler</b>				
345-350	6	<b><u>Infections Present</u></b> The checkbox items indented below follow this structure:			R	Y N U Blank	Yes No Unknown or not stated Not on certificate
345	1	IP_GONN	<b>Gonorrhea</b>	595			
346	1	IP_SYPH	<b>Syphilis</b>	596			
347	1	FILLER	<b>Filler</b>				
348	1	IP_CHLAM	<b>Chlamydia</b>	598			
349	1	IP_HEPB	<b>Hepatitis B</b>	599			
350	1	IP_HEPC	<b>Hepatitis C</b>	600			
351-354	4	<b><u>Obstetric Procedures (Revised)</u></b> The checkbox items below follow this structure:				Y N U Blank	Yes No Unknown or not stated Not on certificate
351	1	OP_CERV	<b>Cervical Cerclage</b>	601	R		
352	1	OP_TOCOL	<b>Tocolysis</b>	602	R		
353	1	OP_ECVS	<b>Successful External Cephalic Version</b>	603	R		
354	1	OP_ECVF	<b>Failed External Cephalic Version</b>	604	R		

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Public Use –Nativity File Record Layout

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355-361	7	<b><u>Obstetric Procedures</u></b> The checkbox items 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	<b>Filler</b>				
357	1	UOP_INDUC	<b>Induction of Labor</b>	703	U,R		
358	1	FILLER	<b>Filler</b>				
359	1	UOP_TOCOL	<b>Tocolysis</b>	705	U,R		
360-361	2	FILLER	<b>Filler</b>				
362-364	3	<b><u>Onset of Labor</u></b> The checkbox items below follow this structure:				Y N U Blank	Yes No Unknown or not stated Not on certificate
362	1	ON_RUPTR	<b>Premature Rupture of Membrane</b>	605	R		
363	1	ON_PRECIP	<b>Precipitous Labor</b>	606	R		
364	1	ON_PROL	<b>Prolonged Labor</b>	607	R		
365-373	9	<b><u>Characteristics of Labor and Delivery (Revised)</u></b> The checkbox items below follow this structure:				Y N U Blank	Yes No Unknown or not stated Not on certificate
365	1	LD_INDL	<b>Induction of Labor</b>	608	R		
366	1	LD_AUGM	<b>Augmentation of Labor</b>	609	R		
367	1	FILLER	<b>Filler</b>				
368	1	LD_STER	<b>Steroids</b>	611	R		
369	1	LD_ANTI	<b>Antibiotics</b>	612	R		
370	1	LD_CHOR	<b>Chorioamnionitis</b>	613	R		
371	1	LD_MECS	<b>Meconium Staining</b>	614	R		
372	1	LD_FINT	<b>Fetal Intolerance</b>	615	R		
373	1	LD_ANES	<b>Anesthesia</b>	616	R		
374-389	16	<b><u>Complications of Labor and Delivery</u></b> The checkbox items below follow this structure: The version is all 1989 Standard unless otherwise noted.				1 2	Yes No

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Public Use –Nativity File Record Layout

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition	
						9 Blank	Unknown or not stated Not on certificate	
374	1	FILLER	<b>Filler</b>					
375	1	ULD_MECO	<b>Meconium</b>	712	U,R			
376-380	5	FILLER	<b>Filler</b>					
381	1	ULD_PRECIP	<b>Precipitous Labor</b>	718	U,R			
382-383	2	FILLER	<b>Filler</b>					
384	1	ULD_BREECH	<b>Breech</b>	721	U,R			
385-389	5	FILLER	<b>Filler</b>					
390-394	5	<b><u>Method of Delivery (Revised)</u></b>						
390-391	2	FILLER	<b>Filler</b>					
392	1	ME_PRES	<b>Fetal Presentation</b>	619	R	1 2 3 9 Blank	Cephalic Breech Other Unknown or not stated Not on certificate	
393	1	ME_ROUT	<b>Route &amp; Method of Delivery</b>	620	R	1 2 3 4 9 Blank	Spontaneous Forceps Vacuum Cesarean Unknown or not stated Not on certificate	
394	1	ME_TRIAL	<b>Trial of Labor Attempted</b>	621	R	Y N X U Blank	Yes No Not applicable Unknown or not stated Not on certificate	
395-400	6	<b><u>Method of Delivery (Unrevised)</u></b>						
		The checkbox items indented below follow this structure:					1 2 9	Yes No Unknown or not stated
395-398	4	FILLER	<b>Filler</b>					
399	1	UME_FORCP	<b>Forceps</b>	734	U,R			
400	1	UME_VAC	<b>Vacuum</b>	735	U,R			

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Public Use –Nativity File Record Layout

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
401	1	RDMETH_REC	<b>Delivery Method Recode (Revised)</b>	679	R	1 2 3 4 5 6 9	Vaginal (excludes vaginal after previous cesarean) Vaginal after previous cesarean Primary cesarean Repeat cesarean Vaginal (unknown if previous cesarean) (2003 Standard only) Cesarean (unknown if previous cesarean) (2003 Standard only) Not stated
402	1	FILLER	<b>Filler</b>				
403	1	DMETH_REC	<b>Delivery Method Recode</b>		U,R	1 2 9	Vaginal Cesarean Unknown
404-409	6	<u><b>Maternal Morbidity</b></u> The checkbox items indented below follow this structure:			R	Y N U	Yes No Unknown or not stated
404	1	MM_MTR	<b>Maternal Transfusion</b>	622			
405	1	MM_PLAC	<b>Perineal Laceration</b>	623			
406	1	MM_RUPT	<b>Ruptured Uterus</b>	624			
407	1	MM_UHYST	<b>Unplanned Hysterectomy</b>	625			
408	1	MM_ICU	<b>Admit to Intensive Care</b>	626			
409	1	MM_UOPER	<b>Unplanned Operation</b>	627			
410	1	ATTEND	<b>Attendant</b>		U,R	1 2 3 4 5 9	Doctor of Medicine (MD) Doctor of Osteopathy (DO) Certified Nurse Midwife (CNM) Other Midwife Other Unknown or not stated
411	1	MTRAN	<b>Mother Transferred</b>	571	R	Y N U	Yes No Unknown
412	1	PAY	<b>Payment Source</b>	580	R	1 2	Medicaid Private Insurance

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2011  
Public Use –Nativity File Record Layout

Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
						3	Self-Pay
						4	Indian Health Service
						5	CHAMPUS/TRICARE
						6	Other Government (Federal, State, Local)
						8	Other
						9	Unknown
413	1	PAY_REC	<b>Payment Recode</b>	678	R	1	Medicade
						2	Private Insurance
						3	Self Pay
						4	Other
						9	Unknown
414	1	FILLER	<b>Filler</b>				Blank
415-416	2	APGAR5	<b>Five Minute APGAR Score</b>	574	U,R	00-10	A score of 0-10
						99	Unknown or not stated
417	1	APGAR5R	<b>Five Minute APGAR Recode</b>	574	U,R	1	A score of 0-3
						2	A score of 4-6
						3	A score of 7-8
						4	A score of 9-10
						5	Unknown or not stated
418	2	APGAR10	<b>Ten Minute APGAR Score</b>	579	R	00-10	A score of 0-10
						88	Not applicable
						99	Unknown or not stated
420	1	APGAR10R	<b>Ten Minute APGAR Recode</b>	579	R	1	A score of 0-3
						2	A score of 4-6
						3	A score of 7-8
						4	A score of 9-10
						5	Not stated/not applicable
421-422	2	FILLER	<b>Filler</b>				Blank
423	1	DPLURAL	<b>Plurality Recode</b>		U,R	1	Single
						2	Twin

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Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
						3	Triplet
						4	Quadruplet
						5	Quintuplet or higher
424	1	FILLER	<b>Filler</b>			Blank	
425	1	IMP_PLUR	<b>Plurality Imputed</b>		U,R	Blank 1	Plurality is not imputed Plurality is imputed
426-435	8	FILLER	<b>Filler</b>			Blank	
436	1	SEX	<b>Sex of Infant</b>		U,R	M F	Male Female
437	1	IMP_SEX	<b>Imputed Sex</b>		U,R	Blank 1	Infant Sex not Imputed Infant Sex is Imputed
438-439	2	DLMP_MM	<b>Last Normal Menses - Month</b>		U,R	01 02 03 04 05 06 07 08 09 10 11 12 99	January February March April May June July August September October November December Unknown or not stated
440-441	2	FILLER	<b>Filler</b>			Blank	
442-445	4	DLMP_YY	<b>Last Normal Menses - Year</b>		U,R	nnnn 9999	Year of last normal menses Unknown or not stated
446-447	2	ESTGEST	<b>Obstetric/Clinical Gestation Est.</b>		U,R	17-47 99	17 <sup>th</sup> through 47 <sup>th</sup> week of Gestation Unknown or not stated

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448-450	3	FILLER	<b>Filler</b>			Blank	
451-452	2	COMBGEST	<b>Gestation – Detail in Weeks</b>	670	U,R	17-47 99	17 <sup>th</sup> through 47 <sup>th</sup> week of Gestation Unknown
453-454	2	GESTREC10	<b>Gestation Recode 10</b>		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	<b>Gestation Recode 3</b>		U,R	1 2 3	Under 37 weeks 37 weeks and over Not stated
456	1	OBGEST_FLG	<b>Obstetric/Clinical Est. of Gestation Used Flag</b>		U,R	Blank 1	Clinical Estimate is not used Clinical Estimate is used
457	1	GEST_IMP	<b>Gestation Imputed Flag</b>		U,R	Blank 1	Gestation is not imputed Gestation is imputed
458-462	5	FILLER	<b>Filler</b>			Blank	
463-466	4	DBWT	<b>Birth Weight – Detail in Grams</b>		U,R	0227-8165	Number of grams
467-470	4	FILLER	<b>Filler</b>			Blank	
471-472	2	BWTR12	<b>Birth Weight Recode 12</b>		U,R	01 02 03 04 05 06 07	499 grams or less 500 – 999 grams 1000 - 1499 grams 1500 – 1999 grams 2000 – 2499 grams 2500 – 2999 grams 3000 – 3400 grams

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						08	3500 – 3999 grams
						09	4000 – 4499 grams
						10	4500 – 4999 grams
						11	5000 – 8165 grams
						12	Not Stated
473	1	BWTR4	<b>Birth Weight Recode 4</b>		U,R	1	1499 grams or less
						2	1500 – 2499 grams
						3	2500 grams or more
						4	Unknown or not stated
474-475	2	FILLER	<b>Filler</b>			Blank	
476-482	7	<b><u>Abnormal Conditions of the Newborn (Revised)</u></b>					
		The checkbox items below follow this structure:				Y	Yes, Complication reported
						N	No Complication reported
						U	Unknown or not stated
						Blank	Not on certificate
476	1	AB_AVEN1	<b>Assisted Ventilation</b>	628	R		
477	1	AB_AVEN6	<b>Assisted Ventilation &gt; 6 hrs</b>	629	R		
478	1	AB_NICU	<b>Admission to NICU</b>	630	R		
479	1	AB_SURF	<b>Surfactant</b>	631	R		
480	1	AB_ANTI	<b>Antibiotics</b>	632	R		
481	1	AB_SEIZ	<b>Seizures</b>	633	R		
482	1	AB_BINJ	<b>Birth Injury</b>	634	R		
483-491	9	FILLER	<b>Filler</b>			Blank	
492-503	12	<b><u>Congenital Anomalies of the Newborn (Revised)</u></b>					
		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	<b>Anencephaly</b>	635	R		
493	1	CA_MNSB	<b>Meningomyelocele / Spina Bifida</b>	636	R		
494	1	CA_CCHD	<b>Cyanotic Congenital Heart Disease</b>	637	R		
495	1	CA_CDH	<b>Congenital Diaphragmatic Hernia</b>	638	R		
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496	1	CA_OMPH	<b>Omphalocele</b>	639	R		
497	1	CA_GAST	<b>Gastroschisis</b>	640	R		
498	1	CA_LIMB	<b>Limb Reduction Defect</b>	641	R		
499	1	CA_CLEFT	<b>Cleft Lip w/ or w/o Cleft Palate</b>	642	R		
500	1	CA_CLPAL	<b>Cleft Palate alone</b>	643	R		
501	1	CA_DOWNS	<b>Down Syndrome</b>	644	R	C P N U Blank	Confirmed Pending No Unknown Not on certificate
502	1	CA_DISOR	<b>Suspected Chromosomal Disorder</b>	645	R	C P N U Blank	Confirmed Pending No Unknown Not on certificate
503	1	CA_HYPO	<b>Hypospadias</b>	646	R	Y N U Blank	Yes, anomaly reported No, anomaly not reported Unknown Not on certificate
504-525	22	<b><u>Congenital Anomalies of the Newborn</u></b> The checkbox items below follow this structure: The version is all 1989 Standard unless otherwise noted.				1 2 9 Blank	Anomaly reported Anomaly not reported Anomaly not classifiable Not on certificate
504	1	UCA_ANEN	<b>Anencephalus</b>	752	U,R		
505	1	UCA_SPINA	<b>Spina Bifida / Meningocele</b>	753	U,R		
506-512	7	FILLER	<b>Filler</b>				
513	1	UCA_OMPHA	<b>Omphalocele / Gastroschisis</b>	761	U,R		
514-517	4	FILLER	<b>Filler</b>				
518	1	UCA_CELFTLP	<b>Cleft Lip / Palate</b>	766	U,R		
519-520	2	FILLER	<b>Filler</b>				
521	1	UCA_HERNIA	<b>Diaphragmatic Hernia</b>	769	U,R		
522	1	FILLER	<b>Filler</b>				

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523	1	UCA_DOWNS	<b>Down Syndrome</b>	771	U,R		
524-525	2	FILLER	<b>Filler</b>				
526	1	ITRAN	<b>Infant Transferred</b>	571	R	Y N U	Yes No Unknown or not stated
527	1	ILIVE	<b>Infant Living at Time of Report</b>	571	R	Y N U	Yes No Unknown or not stated
528	1	BFED	<b>Infant Being Breastfed</b>	581	R	Y N U	Yes No Unknown or not stated
529	4	BMI	<b>BMI</b> (prepregnancy)	576	R	13.0-69.9 99.9	Body Mass Index Unknown or not stated
533	1	BMI_R	<b>Body Mass Index Recode</b> (prepregnancy)	576	R	1 2 3 4 5 6 9	Underweight <18.5 Normal 18.5-24.9 Overweight 25.0-29.9 Obesity I 35.0-39.9 Obesity II 35.0-39.9 Extreme Obesity III ≥ 40.0 Unknown or not stated
534-536	3	ILLB_R	<b>Interval Since Last Live Birth Recode</b>	571	R	000-003 004-300 888 999	Plural delivery Months since last live birth Not applicable / 1 <sup>st</sup> live birth Unknown or not stated
537-538	2	ILLB_R11	<b>Interval Since Last Live Birth Recode 11</b>	571	R	00 01 02 03 04 05 06 07 08	Zero to 3 months (plural delivery) 4 to 11 months 12 to 17 months 18 to 23 months 24 to 35 months 36 to 47 months 48 to 59 months 60 to 71 months 72 months and over

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						88	Not applicable (1 <sup>st</sup> live birth)
						99	Unknown or not stated
539-541	3	ILOP_R	<b>Interval Since Last Other Pregnancy Outcome</b>	571	R	000-003	Plural delivery
						004-300	Months since last live birth
						888	Not applicable / 1 <sup>st</sup> natality event
						999	Unknown or not stated
542-543	2	ILOP_R11	<b>Interval Since Last Other Pregnancy Outcome Recode 11</b>	571	R	00	Zero to 3 months (plural delivery)
						01	4 to 11 months
						02	12 to 17 months
						03	18 to 23 months
						04	24 to 35 months
						05	36 to 47 months
						06	48 to 59 months
						07	60 to 71 months
						08	72 months and over
						88	Not applicable (1 <sup>st</sup> natality event)
						99	Unknown or not stated
544-546	3	ILP	<b>Interval Since Last Pregnancy</b>	571	R	000-003	Plural delivery
						004-300	Months since last live birth
						888	Not applicable / no previous pregnancy
						999	Unknown or not stated
547-548	2	ILP_R11	<b>Interval Since Last Pregnancy Recode 11</b>	571	R	00	Zero to 3 months (plural delivery)
						01	4 to 11 months
						00	12 to 17 months
						01	18 to 23 months
						02	24 to 35 months
						03	36 to 47 months
						04	48 to 59 months
						05	60 to 71 months
						06	72 months and over
						88	Not applicable (no previous pregnancy)
						99	Unknown or not stated

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Position	Len	Field	Description	Reporting Flag Position	Rev*	Values	Definition
549-551	3	PWgt_R	<b>Pre pregnancy Weight Recode</b>	577	R	075-375 999	Weight in pounds Unknown or not stated
552-554	3	DWgt_R	<b>Delivery Weight Recode</b>	578	R	100-400 999	Weight in pounds Unknown or not stated
555-556	2	M_Ht_In	<b>Mother's Height in Inches</b>	576	R	30-78 99	Height in inches Unknown or not stated
557	1	SetOrder_R	<b>Set Order Recode</b>	571	R	1 2 3 4 5 9	1 <sup>st</sup> 2 <sup>nd</sup> 3 <sup>rd</sup> 4 <sup>th</sup> 5 <sup>th</sup> to 16 <sup>th</sup> Unknown or not stated
558-568	36	FILLER	<b>Filler</b>			Blank	
569-773	101	<b><u>Flag File for Reporting Flags</u></b> The reporting flags below follow this coding structure:				0 1	Not reporting Reporting
569	1	F_MORIGIN	<b>Origin of Mother</b>		U,R		
570	1	F_FORIGIN	<b>Origin of Father</b>		U,R		
571	1	F_MEDUC	<b>Education of Mother</b>		R		
572	1	F_FEDUC	<b>Education of Father</b>		R		
573	1	F_CLINEST	<b>Clinical Estimate of Gestation</b>		U,R		
574	1	F_APGAR5	<b>Five minute APGAR</b>		U,R		
575	1	F_TOBACO	<b>Tobacco use</b>		R		
576	1	F_M_HT	<b>Mother's Height</b>		R		
577	1	F_PWGT	<b>Prepregnancy Weight</b>		R		
578	1	F_DWGT	<b>Delivery Weight</b>		R		
579	1	F_WIC	<b>WIC</b>		R		
580	1	F_PAY	<b>Source of Payment</b>		R		
581	1	F_BFED	<b>Breastfed at Discharge</b>		R		
582	1	F_RF_PDIAB	<b>Prepregnancy Diabetes</b>		R		
583	1	F_RF_GDIAB	<b>Gestational Diabetes</b>		R		
584	1	F_RF_PHYPER	<b>Prepregnancy Hypertension</b>		R		
585	1	F_RF_GHYPER	<b>Gestational Hypertension</b>		R		
586	1	F_RF_ECLAMP	<b>Eclampsia</b>		R		
587	1	F_RF_PPB	<b>Previous Preterm Birth</b>		R		

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588	1	F_RF_PPO	<b>Poor Pregnancy outcomes</b>		R		
589	1	FILLER	<b>Filler</b>			Blank	
590	1	F_RF_INF	<b>Infertility Treatment</b>		R		
591	1	F_RF_INF_DRG	<b>Fertility Enhance Drugs</b>		R		
592	1	F_RF_INF_ART	<b>Reproductive Technology</b>		R		
593	1	F_RF_CESAR	<b>Previous Cesarean</b>		R		
594	1	F_RF_NCESAR	<b>Number of Previous Cesareans</b>		R		
595	1	F_IP_GONOR	<b>Gonorrhea</b>		R		
596	1	F_IP_SYPH	<b>Syphilis</b>		R		
597	1	FILLER	<b>Filler</b>			Blank	
598	1	F_IP_CHLAM	<b>Chlamydia</b>		R		
599	1	F_IP_HEPATB	<b>Hepatitis B</b>		R		
600	1	F_IP_HEPATC	<b>Hepatitis C</b>		R		
601	1	F_OB_CERVIC	<b>Cervical Cerclage</b>		R		
602	1	F_OB_TOCO	<b>Tocolysis</b>		R		
603	1	F_OB_SUCC	<b>Successful External Cephalic Version</b>		R		
604	1	F_OB_FAIL	<b>Failed External Cephalic Version</b>		R		
605	1	F_OL_RUPTURE	<b>Premature Rupture of the Membranes</b>		R		
606	1	F_OL_PRECIP	<b>Precipitous Labor</b>		R		
607	1	F_OL_PROLONG	<b>Prolonged Labor</b>		R		
608	1	F_LD_INDUCT	<b>Induction of Labor</b>		R		
609	1	F_LD_AUGMENT	<b>Augmentation of Labor</b>		R		
610	1	FILLER	<b>Filler</b>			Blank	
611	1	F_LD_STERIODS	<b>Steroids</b>		R		
612	1	F_LD_ANTIBIO	<b>Antibiotics</b>		R		
613	1	F_LD_CHORIO	<b>Chorioamnionitis</b>		R		
614	1	F_LD_MECON	<b>Meconium Staining</b>		R		
615	1	F_LD_FINTOL	<b>Fetal Intolerance</b>		R		
616	1	F_LD_ANESTH	<b>Anesthesia</b>		R		
617-618	2	FILLER	<b>Filler</b>			Blank	
619	1	F_MD_PRESENT	<b>Fetal Presentation</b>		R		
620	1	F_MD_ROUTE	<b>Final Route and Method of Delivery</b>		R		
621	1	F_MD_TRIAL	<b>Trial of Labor Attempted</b>		R		
622	1	F_MM_MTRANS	<b>Maternal Transfusion</b>		R		
623	1	F_MM_LACER	<b>Perineal Laceration</b>		R		
624	1	F_MM_RUPTUR	<b>Ruptured Uterus</b>		R		
625	1	F_MM_UHYSTR	<b>Unplanned Hysterectomy</b>		R		
626	1	F_MM_ICU	<b>Admission to Intensive Care</b>		R		
627	1	F_MM_OR	<b>Unplanned Operating Room Procedure</b>		R		
628	1	F_AB_VENT	<b>Assisted Ventilation</b>		R		

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629	1	F_AB_VENT6	<b>Assisted Ventilation &gt;6 hrs</b>		R		
630	1	F_AB_NIUC	<b>Admission to NICU</b>		R		
631	1	F_AB_SURFAC	<b>Surfactant</b>		R		
632	1	F_AB_ANTIBIO	<b>Antibiotics</b>		R		
633	1	F_AB_SEIZ	<b>Seizures</b>		R		
634	1	F_AB_INJ	<b>Birth Injury</b>		R		
635	1	F_CA_ANEN	<b>Anencephaly</b>		R		
636	1	F_CA_MENIN	<b>Meningocele/Spina Bifida</b>		R		
637	1	F_CA_HEART	<b>Cyanotic Congenital Heart Disease</b>		R		
638	1	F_CA_HERNIA	<b>Congenital Diaphragmatic Hernia</b>		R		
639	1	F_CA_OMPHA	<b>Omphalocele</b>		R		
640	1	F_CA_GASTRO	<b>Gastroschisis</b>		R		
641	1	F_CA_LIMB	<b>Limb Reduction Defect</b>		R		
642	1	F_CA_CLEFTLP	<b>Cleft Lip with or without Cleft Palate</b>		R		
643	1	F_CA_CLEFT	<b>Cleft Plate Alone</b>		R		
644	1	F_CA_DOWNS	<b>Down Syndrome</b>		R		
645	1	F_CA_CHROM	<b>Suspected Chromosomal Disorder</b>		R		
646	1	F_CA_HYPOS	<b>Hypospadias</b>		R		
647	1	FILLER	<b>Filler</b>			Blank	
648	1	F_WTGAIN	<b>Weight Gain</b>		U,R		
649	1	FILLER	<b>Filler</b>			Blank	
650	1	F_API	<b>API Codes (unrevised)</b>		U		
651	1	FILLER	<b>Filler</b>			Blank	
652	1	F_MAR_G	<b>Mother's Marital Status (Revised)</b>		R		
653	1	F_MAR_P	<b>Paternity Acknowledged</b>		R		
654-667	14	FILLER	<b>Filler</b>			Blank	
668	1	F_MPCB	<b>Month Prenatal Care Began</b>		R		
669-670	2	FILLER	<b>Filler</b>			Blank	
671	1	F_TPCV	<b>Total Prenatal Care Visits</b>		U,R		
672	1	F_CIGS_0	<b>Cigarettes before Pregnancy</b>		R		
673	1	F_CIGS_1	<b>Cigarettes 1<sup>st</sup> Trimester</b>		R		
674	1	F_CIGS_2	<b>Cigarettes 2<sup>nd</sup> Trimester</b>		R		
675	1	F_CIGS_3	<b>Cigarettes 3<sup>rd</sup> Trimester</b>		R		
676	1	F_FACILITY	<b>Birth Place (Revised)</b>		R		
677	1	FILLER	<b>Filler</b>			Blank	
678	1	F_PAY_REC	<b>Payment Recode</b>		R		
679	1	F_RDMETH_REC	<b>Method of Delivery Recode</b>		R		
680-683	4	FILLER	<b>Filler</b>			Blank	
684	1	F_URF_DIABETES	<b>Diabetes</b>		U,R		
685-687	3	FILLER	<b>Filler</b>			Blank	

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688	1	F_URF_CHYPER	<b>Chronic Hypertension</b>		U,R		
689	1	F_URF_PHYPER	<b>Pregnancy Associated Hypertension</b>		U,R		
690	1	F_URF_ECLAMP	<b>Eclampsia</b>		U,R		
691-702	12	FILLER	<b>Filler</b>			Blank	
703	1	F_UOB_INDUCT	<b>Induction of Labor</b>		U,R		
704	1	FILLER	<b>Filler</b>			Blank	
705	1	F_UOB_TOCOL	<b>Tocolysis</b>		U,R		
706-711	6	FILLER	<b>Filler</b>			Blank	
712	1	F_ULD_MECONIUM	<b>Meconium</b>		U,R		
713-717	5	FILLER	<b>Filler</b>			Blank	
718	1	F_ULD_PRECIP	<b>Precipitous Labor</b>		U,R		
719-720	2	FILLER	<b>Filler</b>			Blank	
721	1	F_ULD_BREECH	<b>Breech</b>		U,R		
722-733	12	FILLER	<b>Filler</b>			Blank	
734	1	F_U_FORCEP	<b>Forceps</b>		U,R		
735	1	F_U_VACUUM	<b>Vacuum</b>		U,R		
736-751	16	FILLER	<b>Filler</b>			Blank	
752	1	F_UCA_ANEN	<b>Anencephalus</b>		U,R		
753	1	F_UCA_SPINA	<b>Spina Bifida / Meningocele</b>		U,R		
754-760	7	FILLER	<b>Filler</b>			Blank	
761	1	F_UCA_OMPHALO	<b>Omphalocele / Gastroschisis</b>		U,R		
762-765	4	FILLER	<b>Filler</b>			Blank	
766	1	F_UCA_CLEFTLP	<b>Cleft Lip / Palate</b>		U,R		
767-768	2	FILLER	<b>Filler</b>			Blank	
769	1	F_UCA_HERNIA	<b>Hernia</b>		U,R		
770	1	FILLER	<b>Filler</b>			Blank	
771	1	F_UCA_DOWNS	<b>Down Syndrome</b>		U,R		
772-775	4	FILLER	<b>Filler</b>			Blank	

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

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

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

**Country Codes**  
**(Alphabetical by Code)**

Code	Geopolitical Entity
AA	ARUBA
AC	ANTIGUA AND BARBUDA
AE	UNITED ARAB EMIRATES
AF	AFGHANISTAN
AG	ALGERIA
AJ	AZERBAIJAN
AL	ALBANIA
AM	ARMENIA
AN	ANDORRA
AO	ANGOLA
AQ	AMERICAN SAMOA
AR	ARGENTINA
AS	AUSTRALIA
AT	ASHMORE AND CARTIER ISLANDS
AU	AUSTRIA
AV	ANGUILLA
AY	ANTARCTICA
BA	BAHRAIN
BB	BARBADOS
BC	BOTSWANA
BD	BERMUDA
BE	BELGIUM
BF	BAHAMAS, THE
BG	BANGLADESH
BH	BELIZE
BK	BOSNIA AND HERZEGOVINA
BL	BOLIVIA
BM	BURMA
BN	BENIN
BO	BELARUS
BP	SOLOMON ISLANDS
BR	BRAZIL
BS	BASSAS DA INDIA
BT	BHUTAN
BU	BULGARIA
BV	BOUVET ISLAND
BX	BRUNEI
BY	BURUNDI
CA	CANADA
CB	CAMBODIA
CD	CHAD
CE	SRI LANKA
CF	CONGO
CG	CONGO
CH	CHINA
CI	CHILE
CJ	CAYMAN ISLANDS
CK	COCOS (KEELING) ISLANDS
CL	CENTRAL AND SOUTHERN LINE ISLANDS
CM	CAMEROON
CN	COMOROS
CO	COLOMBIA
CQ	NORTHERN MARIANAS ISLANDS
CR	CORAL SEA ISLANDS

**Country Codes**  
**(Alphabetical by Code)**

Code	Geopolitical Entity
CS	COSTA RICA
CT	CENTRAL AFRICAN REPUBLIC
CU	CUBA
CV	CAPE VERDE
CW	COOK ISLANDS
CY	CYPRUS
CZ	CZECHOSLOVAKIA
DA	DENMARK
DJ	DJIBOUTI
DM	DAHOMY [BENIN]
DO	DOMINICA
DQ	JARVIS ISLAND
DR	DOMINICAN REPUBLIC
EB	EAST BERLIN
EC	ECUADOR
EG	EGYPT
EI	IRELAND
EK	EQUATORIAL GUINEA
EN	ESTONIA
EQ	CANTON AND ENDERBERRY ISLANDS
ER	ERITREA
ES	EL SALVADOR
ET	ETHIOPIA
EU	EUROPA ISLAND
EZ	CZECH REPUBLIC
FG	FRENCH GUIANA
FI	FINLAND
FJ	FIJI
FK	FALKLAND ISLANDS
FM	MICRONESIA, FEDERATED STATES OF
FO	FAROE ISLANDS
FP	FRENCH POLYNESIA
FR	FRANCE
FS	FRENCH SOUTHERN AND ANTARCTIC LANDS
FT	FRENCH TERRITORY OF THE AFFARS AND ISSAS
GA	GAMBIA, THE
GB	GABON
GC	EAST GERMANY (GERMAN DEMOCRATIC REPUBLIC)
GE	WEST GERMANY (FEDERAL REPUBLIC OF GERMANY)
GG	GEORGIA
GH	GHANA
GI	GIBRALTAR
GJ	GRENADA
GK	GUERNSEY
GL	GREENLAND
GM	GERMANY
GN	GILBERT AND ELLICE ISLANDS
GO	GLORIOSO ISLANDS
GP	GUADELOUPE
GQ	GUAM
GR	GREECE
GS	GILBERT ISLANDS
GT	GUATEMALA
GV	GUINEA

**Country Codes**  
**(Alphabetical by Code)**

Code	Geopolitical Entity
GY	GUYANA
GZ	GAZA STRIP
HA	HAITI
HK	HONG KONG
HM	HEARD ISLAND AND MCDONALD ISLANDS
HO	HONDURAS
HQ	HOWLAND ISLAND
HR	CROATIA
HU	HUNGARY
IC	ICELAND
ID	INDONESIA
IM	ISLE OF MAN
IN	INDIA
IO	BRITISH INDIAN OCEAN TERRITORY
IP	CLIPPERTON ISLAND
IQ	US MISCELLANEOUS PACIFIC ISLANDS
IR	IRAN
IS	ISRAEL
IT	ITALY
IU	ISRAEL-SYRIA DEMILITARIZED ZONE
IV	COTE D'IVOIRE
IW	ISRAEL-JORDAN DEMILITARIZED ZONE
IY	IRAQ-SAUDI ARABIA NEUTRAL ZONE
IZ	IRAQ
JA	JAPAN
JE	JERSEY
JM	JAMAICA
JN	JAN MAYEN
JO	JORDAN
JQ	JOHNSTON ISLAND
JS	SVALBARD AND JAN MAYEN
JU	JUAN DE NOVA ISLAND
KE	KENYA
KG	KYRGYZSTAN
KN	NORTH KOREA
KR	KIRIBATI
KS	SOUTH KOREA
KT	CHRISTMAS ISLAND
KU	KUWAIT
KZ	KAZAKHSTAN
LA	LAOS
LE	LEBANON
LG	LATVIA
LH	LITHUANIA
LI	LIBERIA
LO	SLOVAKIA
LQ	PALMYRA ATOLL
LS	LIECHTENSTEIN
LT	LESOTHO
LU	LUXEMBOURG
LY	LIBYA
MA	MADAGASCAR
MB	MARTINIQUE
MC	MACAU



**Country Codes**  
**(Alphabetical by Code)**

Code	Geopolitical Entity
MD	MOLDOVA
ME	SPANISH NORTH AFRICA
MF	MAYOTTE
MG	MONGOLIA
MH	MONTSERRAT
MI	MALAWI
MK	MACEDONIA, F.Y.R.O.
ML	MALI
MN	MONACO
MO	MOROCCO
MP	MAURITIUS
MQ	MIDWAY ISLAND
MR	MAURITANIA
MT	MALTA
MU	OMAN
MV	MALDIVES
MX	MEXICO
MY	MALAYSIA
MZ	MOZAMBIQUE
NA	NETHERLANDS ANTILLES
NC	NEW CALEDONIA
NE	NIUE
NF	NORFOLK ISLAND
NG	NIGER
NH	VANUATU
NI	NIGERIA
NL	NETHERLANDS
NO	NORWAY
NP	NEPAL
NR	NAURU
NS	SURINAME
NT	NETHERLANDS ANTILLES
NU	NICARAGUA
NZ	NEW ZEALAND
PA	PARAGUAY
PC	PITCAIRN ISLAND
PE	PERU
PF	PARACEL ISLANDS
PG	SPRATLY ISLANDS
PK	PAKISTAN
PL	POLAND
PM	PANAMA
PN	PANAMA
PO	PORTUGAL
PP	PAPUA NEW GUINEA
PQ	PANAMA CANAL ZONE
PS	PALAU
PT	TIMOR
PU	GUINEA-BISSAU
QA	QATAR
RE	REUNION
RH	SOUTHERN RHODESIA
RM	MARSHALL ISLANDS
RO	ROMANIA

**Country Codes**  
**(Alphabetical by Code)**

Code	Geopolitical Entity
RP	PHILIPPINES
RQ	PUERTO RICO
RS	RUSSIA
RW	RWANDA
SA	SAUDI ARABIA
SB	SAINT PIERRE AND MIQUELON
SC	SAINT KITTS AND NEVIS
SE	SEYCHELLES
SF	SOUTH AFRICA
SG	SENEGAL
SH	SAINT HELENA
SI	SLOVENIA
SK	SIKKIM
SL	SIERRA LEONE
SM	SAN MARINO
SN	SINGAPORE
SO	SOMALIA
SP	SPAIN
SQ	SWAN ISLANDS
SS	SPANISH SAHARA
ST	SAINT LUCIA
SU	SUDAN
SV	SVALBARD
SW	SWEDEN
SX	SOUTH GEORGIA AND THE SOUTH SANDWICH ISLANDS
SY	SYRIA
SZ	SWITZERLAND
TC	UNITED ARAB EMIRATES
TD	TRINIDAD AND TOBAGO
TE	TROMELIN ISLAND
TH	THAILAND
TI	TAJIKISTAN
TK	TURKS AND CAICOS ISLANDS
TL	TOKELAU
TN	TONGA
TO	TOGO
TP	SAO TOME AND PRINCIPE
TQ	TRUST TERRITORY OF THE PACIFIC ISLANDS
TS	TUNISIA
TT	EAST TIMOR
TU	TURKEY
TV	TUVALU
TW	TAIWAN
TX	TURKMENISTAN
TZ	TANZANIA
UG	UGANDA
UK	UNITED KINGDOM
UP	UKRAINE
UR	UNION OF SOVIET SOCIALIST REPUBLICS
US	UNITED STATES
UV	BURKINA FASO
UY	URUGUAY
UZ	UZBEKISTAN
VC	SAINT VINCENT AND THE GRENADINES

**Country Codes**  
**(Alphabetical by Code)**

Code	Geopolitical Entity
VE	VENEZUELA
VI	BRITISH VIRGIN ISLANDS
VM	VIETNAM
VN	NORTH VIETNAM
VQ	UNITED STATES VIRGIN ISLANDS
VS	SOUTH VIETNAM
VT	HOLY SEE (VATICAN CITY)
WA	NAMIBIA
WB	WEST BERLIN
WE	WEST BANK
WF	WALLIS AND FUTUNA
WI	WESTERN SAHARA
WQ	WAKE ISLAND
WS	SAMOA
WZ	SWAZILAND
YE	YEMEN (SANA'A)
YI	YUGOSLAVIA
YM	YEMEN
YO	YUGOSLAVIA
YQ	RYUKYU ISLANDS, SOUTHERN
YS	YEMEN (ADEN)
ZA	ZAMBIA
ZI	ZIMBABWE

**DETAILED TECHNICAL NOTES \***

**UNITED STATES**

**2011**

**NATALITY**

**U.S. DEPARTMENT OF  
HEALTH AND HUMAN SERVICES**

**CENTERS FOR DISEASE CONTROL AND PREVENTION  
NATIONAL CENTER FOR HEALTH STATISTICS  
Hyattsville, Maryland: 2013**

\* Formerly the “Technical appendix for Vital Statistics of the United States. Natality.

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## Introduction

These Detailed Technical Notes, published by the Centers for Disease Control and Prevention's National Center for Health Statistics (NCHS), supplement the "Technical Notes" section of "Births: Final Data for 2011" [1], and are for use with the 2011 Natality public use data. The 2011 natality micro-data file may be downloaded at: [http://www.cdc.gov/nchs/data\\_access/VitalStatsOnline.htm](http://www.cdc.gov/nchs/data_access/VitalStatsOnline.htm) [2] and is available on CD-ROM by request. These Technical Notes also provide additional documentation for VitalStats <http://www.cdc.gov/nchs/VitalStats.htm>, a data access and analysis tool [3]. VitalStats includes interactive pre-built tables and the ability to create tables and graphics using more than 100 demographic and health variables from the 1990-2011 natality public-use files.

Beginning with the 2005 data year, the micro-data natality file no longer includes geographic detail (e.g., state or county of birth). Information on the NCHS data release policy is available at: [http://www.cdc.gov/nchs/nvss/dvs\\_data\\_release.htm](http://www.cdc.gov/nchs/nvss/dvs_data_release.htm) [4]. Tabulations of birth data by state and for counties with populations of 100,000 or more may be made using VitalStats as described above. Procedures for requesting micro-data files with geographic detail are provided in the NCHS data release policy.

Beginning with the 2007 data year, data items exclusive to the 1989 revision of the U.S. Standard Certificate of Live Birth (i.e., maternal anemia, ultrasound, alcohol use) are no longer available in public use files. Beginning with the 2011 data year, unrevised data for educational attainment, prenatal care, and type of vaginal and cesarean delivery are no longer included on the data file. Data for these items from the 1989 revision are not comparable with the data from the 2003 revision.

"Births: Final Data for 2011" [1] does not include the following items: month of birth, day of week of birth, time of birth, weight gain during pregnancy, educational attainment, tobacco use during pregnancy, month prenatal care began, and selected risk factors, obstetric procedures, characteristics of labor and delivery, and congenital anomalies. See **Tables I-2, I-3, I-5, I-6**, (available at [http://www.cdc.gov/nchs/data/nvsr/nvsr62/nvsr62\\_01\\_tables.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr62/nvsr62_01_tables.pdf)) and selected **Documentation Tables 2 through 19** in this guide for tabular data for these items.

## Definition of Live Birth

Every product of conception that gives a sign of life after birth, regardless of the length of the pregnancy, is considered a live birth. This concept is included in the definition set forth by the World Health Organization in 1950 as described in a United Nation's Handbook [5]. A slightly expanded definition of live birth was recommended by the 1992 revision of the Model State Vital Statistics Act and Regulations [6], based on recommendations of a 1988 working group formed by the American Academy of Pediatrics and the American College of Obstetricians and Gynecologists [7] and is consistent with that currently used by the WHO in the ICD-10 [8] and the United Nations:

“Live birth” means the complete expulsion or extraction from its mother of a product of human conception, irrespective of the duration of pregnancy, which, after such expulsion or extraction, breathes, or shows any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached. Heartbeats are to be distinguished from transient cardiac contractions; respirations are to be distinguished from fleeting respiratory efforts or gasps.

This definition distinguishes in precise terms a live birth from a fetal death [9,10]. The vast majority of registration areas use definitions of live births similar to this definition [9]. All states require the reporting of live births regardless of length of gestation or birth weight.

### **The Birth-Registration Area**

Currently the birth-registration system of the United States includes the 50 states, the District of Columbia, the independent registration area of New York City, and Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands (referred to as Northern Marianas). However, in the statistical tabulations, “United States” refers only to the aggregate of the 50 states (including New York City) and the District of Columbia. Information on the history and development of the birth-registration area is available elsewhere [11,12].

Birth statistics for years prior to 1951 and for 1955 are based on the total file of birth records. Statistics for 1951-54, 1956-66, and 1968-71 are based on 50-percent samples except

for data for Guam and the Virgin Islands, which are based on all records filed. During the processing of the 1967 data, the sampling rate was reduced from 50 percent to 20 percent. From 1972 to 1984 statistics are based on all records filed in the States submitting computer tapes and on a 50-percent sample of records in all other States.

Since 1985, natality statistics for all states and the District of Columbia have been based on information from the total file of records, that is, all births registered in the reporting areas. The information is received on electronic files consisting of individual records processed by the states, the District of Columbia, New York City, Puerto Rico, the Virgin Islands, American Samoa, and the Northern Marianas (except for the Virgin Islands in 2009-2011). NCHS receives these files from the registration offices of all states, the two cities and four territories through the Vital Statistics Cooperative Program. Information for Guam and the Virgin Islands for 2011 is obtained from paper copies of original birth certificates which are coded and keyed by NCHS. Data from American Samoa first became available in 1997; data from the Northern Marianas in 1998.

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

### **Classification of births by occurrence and residence**

In tabulations by place of residence, births occurring within the United States to U.S. citizens and to residents who are not citizens are allocated to the usual place of residence of the mother in the United States, as reported on the birth certificate. Births to U.S. residents occurring outside this country are not included in tabulations by place of residence or place of occurrence.

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



See **Table A** for the number of births by residence and occurrence for the 50 states and the District of Columbia for 2011.

*Residence error* -- According to a 1950 test (which has not been repeated), errors in residence reporting for the country as a whole tend to overstate the number of births to residents of urban areas and to understate the number of births to residents of other areas [13]. Recent experience based on anecdotal evidence from the states, suggests that this is still a concern. This tendency has assumed special importance because of a concomitant development—the increased utilization of hospitals in cities by residents of nearby places—with the result that a number of births are erroneously reported as having occurred to residents of urban areas. Another factor that contributes to this overstatement of urban births is the customary practice of using city addresses for persons living outside the city limits. Residence error should be taken into particular consideration in interpreting tabulated data for small areas. Both birth and infant mortality patterns can be affected.

Information on the completeness of reporting of birth certificate data is shown in **Table B**, which presents a listing of items and the percentage of records that were not stated for each reporting area: all 50 states, New York City, Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Northern Marianas.

*Population based rates* -- One of the principal values of vital statistics data is realized through the presentation of rates that are computed by relating the vital events of a class to the population of a similarly defined class (e.g., 2011 births to women aged 20-24 years and the 2011 population of women aged 20-24). Vital statistics and population statistics, therefore, must be tabulated in comparable groups. Even when the variables common to both, such as geographic area, age, race, and sex, have been similarly classified and tabulated, significant discrepancies may result from differences between the enumeration method of obtaining population data and the registration method of obtaining vital statistics data [14].

*Geographic classification* -- The geographic code structure for the 2011 natality file is given in two NCHS manuals, “Vital Records Geographic Classification, 2003,” and “Vital Records Geographic Classification, 2004, Federal Information Processing Standards (FIPS).” [15,16]. The geographic code structure on the 2011 file is based on results of the 2011 Census of Population.

### **Standard Certificates of Live Birth**

The U.S. Standard Certificate of Live Birth, issued by the U.S. Department of Health and Human Services, has served for many years as the principal means for attaining uniformity in the content of the documents used to collect information on births in the United States. The U.S. Standard Certificate of Live Birth is revised every 10-15 years. Most state certificates conform closely in content to the standard certificate, but are modified to the extent required by the particular state's needs or by special provisions of the state's vital statistics law.

*The 2003 revision* — In 2003, a revised U.S. Standard Certificate of Live Birth was adopted (**Figure 1**). For more details regarding the certificate revision and links to the documents referenced below, see the NCHS website of the 2003 certificate revision at: [http://www.cdc.gov/nchs/nvss/vital\\_certificate\\_revisions.htm](http://www.cdc.gov/nchs/nvss/vital_certificate_revisions.htm). The 2003 birth certificate replaces the previous 1989 U.S. Standard Certificate of Live Birth [11,17,18]. Implementation of the 2003 U.S. Standard Certificate of Live Birth (revised) by the states and independent reporting areas is being phased in over a number of years and is expected to be complete in January 2015. See **Table C** for the year of implementation by state and independent reporting areas. Thirty-six states, the District of Columbia, Puerto Rico, and the Northern Marianas had implemented the revised birth certificate as of January 1, 2011: California, Colorado, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, New York (including New York City), North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Washington, Wisconsin, and Wyoming. Two additional States, Massachusetts and Minnesota, and one territory, Guam, implemented the revised birth certificate in 2011, but after January 1. Data for reporting areas revising after January 1 are not included in **Documentation Tables 1 through 19**. Births to residents of the 36 states and the District of Columbia which had revised as of

January 1, 2011 represent 83 percent of all births to United States residents in 2011. See **Table D** for a comparison of selected demographic and infant health characteristics of the revised reporting area (excluding Puerto Rico and the Northern Marianas) to the United States as a whole. Data from 2011 for the 36-state and the District of Columbia revised reporting area are presented in **Documentation Tables 1 through 19** of these Notes.

The 2003 Revision of the U.S. Standard Certificate of live birth introduced substantial changes to data content and quality. Many key data items are common between revisions; however, a number of items were substantively modified. The 2003 revision also includes many new items never before collected on the Standard Certificate [17,18].

A key aspect of the 2003 revision of the U.S. Standard Certificate of Live Birth has been the re-engineering of the data collection and transmission system. The intent of the re-engineering is to improve data quality, speed of data collection and transmission, and to enhance standardization of data [17,19]. To encourage collection of data from the best sources, two worksheets have been developed: the “Mother’s Worksheet” and the “Facility Worksheet.” In the mother’s worksheet, data are directly obtained from the mother and include items such as race, Hispanic origin and educational attainment. For the facility worksheet, data are obtained directly from the medical records of the mother and infant for items such as date last normal menses began, pregnancy risk factors, and method of delivery. To assist hospital staff in completing the facility worksheet, a comprehensive instruction manual was developed: *Guide to Completing the Facility Worksheets for the Certificate of Live Birth and Report of Fetal Death (2003 Revision)* [20]. Details of the nature and content of the 1989 revision are available elsewhere [11,12].

*Comparability of data between the 1989 and 2003 Revisions of the United States Standard Certificates of Live Birth* — Many data items (e.g., maternal age, birth order, marital status, attendant at birth, birthweight, gestational age) are common to both the 1989 and 2003 standard birth certificates and are considered directly comparable between revisions. Several key items, however (i.e., educational attainment, tobacco use during pregnancy, month prenatal care began and type of vaginal or cesarean delivery), although collected on both certificate revisions, were substantively modified. Data for these items are not considered comparable between revisions and are not combined in tabulations or in the data files. Beginning in 2008, key non-comparable data items exclusive to the 2003 revision (i.e. education, prenatal care,

tobacco use, type of vaginal and cesarean delivery) are no longer included in “Births: Final Data: ,” see **Documentation Tables 2, 4, 8 and 14** for tabular data for 2011. Also, as of the 2011 data year, the unrevised data on these items are no longer on this file or included in VitalStats.

The checkbox items Risk factors in this pregnancy, Obstetric procedures, Characteristics of labor and delivery, Method of delivery, Abnormal conditions of the newborn, and Congenital anomalies of the newborn are included on both the 1989 and the 2003 U.S. Standard Certificates of Live Birth. However, many of the specific checkboxes under these items were modified, or are entirely new to the 2003 certificate. “Births: Final Data for 2011” presents information for specific checkboxes for which data *are* comparable across revisions [1]. See selected **Documentation tables 2 through 19** for tabular data for 2011 for 2003 revision-based information for selected specific checkbox items included under the checkbox categories listed above plus data on key items not comparable between revisions, i.e.: education, tobacco use, prenatal care, and type of vaginal and cesarean delivery. This information can be found in **Documentation tables 2 through 11** of the 2010 User Guide [21] and **Documentation tables 2 through 8** of the 2009 User Guide [22]. Earlier reports and the 2007 User Guide presented these data for 2004-2008 [23-27]. For 2003-2010 data based on the unrevised reporting area, see VitalStats, and the public use data files [2,3]. The public-use files and VitalStats do not include data for non-comparable unrevised checkbox items for 2007 through 2011.

The 2003 revision also includes a number of items which are new *and* exclusive to the 2003 revised certificate (e.g., Use of infertility therapies, Principal source of payment for the delivery, Maternal morbidity, Breastfeeding and the Receipt of WIC food for the pregnancy) (**Figure 1**); These items are included on the 2011 natality public use file and are discussed below. See selected **Documentation tables 3 through 19** for tabular data for 2011.

**Table B** presents a listing of items and the percentage of records that were not stated for all reporting areas: each state, New York City, the District of Columbia, plus Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Northern Marianas. Births to residents of revised states which occur in unrevised states are classified as unknowns for items exclusive to the 2003 revision (0.3 percent for the revised area).

## **Natality data files**

*Micro-data files* -- Natality micro-data files for data years 1968-2011 may be downloaded at: [http://www.cdc.gov/nchs/data\\_access/VitalStatsOnline.htm](http://www.cdc.gov/nchs/data_access/VitalStatsOnline.htm). Natality micro-data files for data years 1968-2011 are also available on CD-ROM upon request. The general rules used to classify characteristics of live births are presented in several NCHS manuals [15,16,19,28]. These instructions are for states to use to collect and code the data items; they do not include NCHS edit recodes.

The 2003-2011 edits and natality micro-data files include data items common to both the 1989 and 2003 revisions of the U.S. Standard Certificate of Live Birth. The files also include items exclusive to the 2003 revision. Beginning with the 2007 public-use file, most non-comparable items exclusive to the 1989 revision are no longer included. Data items which are common to both revisions are combined in the same data field(s); items which are exclusive to the 2003 revision, are captured in separate fields. See file layout in this User Guide [2]. Certain data items new to the 2003 revised certificate (e.g., maternal morbidity) are available for files 2009-2011. See **Figure 1** for information on items included in the file.

Beginning with the 2005 data year, the public release micro-data natality file no longer includes geographic detail (e.g., state or county of birth). Information on the new data use policy is available at: [http://www.cdc.gov/nchs/nvss/dvs\\_data\\_release.htm](http://www.cdc.gov/nchs/nvss/dvs_data_release.htm) [4]. However, tabulations of birth data by state and for counties with populations of 100,000 or more may be made using the interactive data tool VitalStats, described below.

*Reporting flags* -- The 2011 public use micro-data file includes extensive reporting flags to assist in the accurate exclusion of records for items not reported by all states when tabulating data by mother's place of residence. Reporting flags should be used to generate accurate numbers by residence for items which are not reported by all states. More information on the use of reporting flags can be found in the introduction to the 2011 file documentation in this User Guide [2]. Identification of individual state level data, however, is not possible with the public-use micro-data file for 2011 [4].

*VitalStats* -- VitalStats is an online data access tool which gives users access to a collection of interactive pre-built tables, and the ability to build their own tables choosing from over 100 public use birth variables for natality data files for 1990-2011 [3]. Interactive charting and mapping tools are a key part of the system, and provide powerful options for visualizing and manipulating tabulated data at the national, state, and county level (for counties of 100,000

population or more). Additionally, users can export tabulated data to Excel for further analysis. VitalStats is available at: <http://www.cdc.gov/nchs/VitalStats.htm>. Data for territories (American Samoa, Guam, Northern Marianas Islands, Puerto Rico, U.S. Virgin Islands) are available for 2005 to 2011.

## **Demographic characteristics**

### **Hispanic origin and race**

*Hispanic origin*--Information on Hispanic origin of mother and father is available for the entire United States. Hispanic origin and race are reported separately on the birth certificate. The following five categories are collected in a checkbox format (**Figure 1**):

- No, not Spanish/Hispanic/Latina
- Yes, Mexican, Mexican American, Chicana
- Yes, Puerto Rican
- Yes, Cuban
- Yes, other Spanish/Hispanic/Latina (Specify)

This information is recommended to be reported directly by the mother. See the “Mother’s Worksheet for the Child’s Birth Certificate” available at: [http://www.cdc.gov/nchs/data/dvs/momswkstf\\_improv.pdf](http://www.cdc.gov/nchs/data/dvs/momswkstf_improv.pdf).

Data on the public use file and in NCHS reports for specified Hispanic groups are shown in most cases for five groups: Mexican, Puerto Rican, Cuban, Central and South American, and “other and unknown Hispanic.” In tabulations of birth data by race and Hispanic origin, data for persons of Hispanic origin are not further classified by race because the vast majority of births to Hispanic women are reported as white. In tabulations of birth data by race only, data for persons of Hispanic origin are included in the data for each race group according to the mother’s reported race. In tabulations that include Hispanic origin, data for non-Hispanic persons are classified according to the race of the mother, due to substantial differences in fertility and maternal and infant health characteristics between Hispanic and non-Hispanic white women.

Items asking for the Hispanic origin of the mother and the father have been included on the birth certificates of all states, D.C., Virgin Islands, and Guam since 1993, and on the birth certificate of Puerto Rico starting in 2005, and Northern Marianas starting in 2010 [21]. American Samoa does not collect this information.

The Hispanic origin question on the 2003 revision of the birth certificate asks respondents to select only one response. Occasionally, however, more than one Hispanic origin response is given, that is, a specified Hispanic group (Mexican, Puerto Rican, Cuban, or Central and South American) in combination with one or more other specified Hispanic group. When this occurs, all responses are collected. These procedures have been in place since the first revision year, 2003. In 2011, 0.4 percent of births in the revised-state reporting area, plus Minnesota and Rhode Island (unrevised states that also reported more than one Hispanic origin response), were to women reporting more than one Hispanic origin. Respondents who select more than one Hispanic origin on the birth certificate are classified as “other Hispanic.” The Hispanic origin question on the 1989 revision of the birth certificate also offers the opportunity to report more than one origin; however, NCHS processing guidelines for unrevised data allow only for coding the first Hispanic origin listed.

Women who report more than one Hispanic origin on the 2003 revised birth certificate are included in the category “other and unknown Hispanic;” however, the American Community Survey [29], on which the 2010 and 2011 population denominators are based, randomly assign respondents who report more than one Hispanic origin to a single origin only. (The Current Population Survey, on which the population denominators before 2010 are based, queried respondents who report more than one Hispanic origin to obtain a single origin only [30].) As a result, the population-based rates shown in this report for “other Hispanic” women are slightly higher (about 2 percent) than if births to women reporting more than one Hispanic origin were excluded from this category.

*Change in births to “other and unknown Hispanic” women*—The number of births to “other and unknown Hispanic” women increased by 8 percent from 120,921 in 2010 to 131,060 in 2011. This number rose each year from 2005 through 2011. Factors that may have influenced this rise are not clear but may include less specificity in respondent reporting of Hispanic origin (e.g., “Hispanic” in lieu of “Mexican” or “Puerto Rican,”) increases in the number of

multiple-Hispanic reporting areas, and increases in the populations of groups included in the “other Hispanic” category.

The 36 revised states, D.C., Minnesota, and Rhode Island accounted for 86 percent of Hispanic births in the United States in 2011. The percentage of records for which Hispanic origin of the parents was not reported in 2011 is shown by state in **Table B**.

*Single, multiple, and “bridged” race of mother and father*--Information on race of mother and father is available for the entire United States. Hispanic origin and race are reported separately on the birth certificate. The following fifteen race categories are collected in a checkbox format (**Figure 1**):

- White
- Black or African American
- American Indian or Alaska Native
- Asian Indian
- Chinese
- Filipino
- Japanese
- Korean
- Vietnamese
- Other Asian (Specify)
- Native Hawaiian
- Guamanian or Chamorro
- Samoan
- Other Pacific Islander (Specify)
- Other (Specify)

The instructions are to check one or more races to indicate what the mother/father considers her/himself to be. This information is recommended to be reported directly by the mother. See the “Mother’s Worksheet for the Child’s Birth Certificate” available at:

[http://www.cdc.gov/nchs/data/dvs/momswkstf\\_improv.pdf](http://www.cdc.gov/nchs/data/dvs/momswkstf_improv.pdf).



In 1997, the Office of Management and Budget (OMB) issued “Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity,” which revised the “1977 Statistical Policy Directive 15, Race and Ethnic Standards for Federal Statistics and Administrative Reporting” [31,32]. These documents specify guidelines for collecting, tabulating, and presenting race and ethnicity data within the federal statistical system. The 1997 revised standards incorporated two major changes designed to reflect the changing racial and ethnic profile of the United States. First, the revision increased from four to five the minimum set of categories to be used by federal agencies for identification of race. The 1977 standards required federal agencies to report race-specific tabulations using a minimum set of four single-race categories: American Indian or Alaska Native (AIAN), Asian or Pacific Islander (API), black, and white. The five categories for race specified in the 1997 standards are: AIAN, Asian, black or African American, Native Hawaiian or Other Pacific Islander (NHOPI), and white. The revised standards called for reporting Asian persons separately from NHOPI. The revised standards also require federal data collection programs to allow respondents to select one or more race categories.

Beginning with the 2000 decennial census, the U.S. Census Bureau collected race and ethnicity data in accordance with the 1997 revised standards; however, the National Vital Statistics System, which is based on data collected by the states, will not be fully compliant with the new standards until all of the states revise their birth certificates to reflect the new standards. Thus, beginning with the 2000 data year, the numerators (births) for birth rates are incompatible with the denominators (populations); see “Population denominators.” To compute rates, it is necessary to “bridge” population data for multiple-race persons to single-race categories. This has been done for birth rates by race presented in this report. Once all states revise their birth registration systems to be compliant with the 1997 OMB standards, the use of bridged populations can be discontinued.

Forty states and the District of Columbia, representing 86 percent of all U.S. resident births, reported multiple-race data in 2011. Multiple-race reporting areas include: California, Colorado, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Massachusetts (after January 1), Michigan, Minnesota (which revised after January 1, but reported multiple-race data for full year), Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma,

Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Washington, Wisconsin, Wyoming, the District of Columbia, Guam (after January 1), and Northern Marianas, all of which used the 2003 revision of the U.S. Standard Certificate of Live Birth, as well as Hawaii and Rhode Island, which used the 1989 revision. Puerto Rico, which revised its birth certificate in 2005, reported race according to the 1989 certificate revision. Slightly more than 2 percent of mothers in the states reported more than one race [1]. Prior to 2011, the multiple-race reporting states varied; 6 states reported more than one race in 2003, 15 states in 2004, 19 states in 2005, 23 states in 2006, 27 states in 2007, 30 states in 2008, 33 states and D.C. in 2009, and 38 states and D.C. in 2010. Data from the vital records of the remaining 10 states and 2 territories followed the 1977 OMB standards in which only a single race is reported [32]. In addition, these areas also reported the minimum set of four races as stipulated in the 1977 standards compared with the minimum of five races for the 1997 standards.

To provide uniformity and comparability of data during the transition period before multiple-race data are available for all reporting areas, bridging the responses of those who reported more than one race to a single race is necessary. The bridging procedure for multiple-race mothers and fathers is based on the procedure used to bridge multiracial population estimates; see “Population denominators” [33]. Multiple race is imputed to a single race (AIAN, API, black, or white) according to the combination of races, Hispanic origin, sex, and age of the mother or father indicated on the birth certificate. The imputation procedure is described in detail elsewhere [34,35].

Where race of the mother is not reported, if the race of the father is known, the race of the father is assigned to the mother. When information is not available for either parent, the race of the mother is imputed according to the specific race of the mother on the preceding record with a known race of mother.

Beginning with the 1989 data year, NCHS started tabulating its birth data primarily by race of mother. In 1988 and prior years, births were tabulated by race of child, which was determined from the race of the parents as entered on the birth certificate.

Trend data by race shown in this report are by race of mother for all years beginning with the 1980 data year. Text references to white births and white mothers or black births and black mothers are used interchangeably for ease in writing.

## Age of mother

Information on age of mother is available for the entire United States. Beginning with the 1989 U.S. Standard Certificate of Live Birth, a “Date of birth” item replaced the “Age (at time of this birth)” item. Not all states revised this item, and, therefore, the age of mother either is derived from the reported month and year of birth or coded as stated on the certificate. In 2011, age of mother was reported directly by one state (Virginia) and American Samoa. This information is recommended to be reported directly by the mother. See the “Mother’s Worksheet for the Child’s Birth Certificate” available at:

[http://www.cdc.gov/nchs/data/dvs/momswkstf\\_improv.pdf](http://www.cdc.gov/nchs/data/dvs/momswkstf_improv.pdf).

*Imputation of age of mother*-From 1964 to 1996, mother’s age was edited for ages 10-49 years. Births reported as occurring to mothers under age 10 or over age 49 were assigned the mean age of mothers based on data from a previous year with the same race, Hispanic origin, and total birth order (total of live births and fetal deaths). Beginning in 1997, age of mother is imputed for ages 9 years or under and 55 years and over. This procedure was used through 2006 for births in states using the 1989 Revision of the U.S. Standard Certificate of Live birth (unrevised). Beginning in 2003 for births occurring in states using the 2003 revision of the birth certificate (revised), a slightly wider age range is used; age of mother is imputed for ages 8 years or under and 65 years and over (mother’s age 9 years is recoded as 10 years and ages 55-64 years are recoded to an age from 50-54 years). Starting in 2007, the same procedures are used for states using the unrevised certificate. A review and verification of unedited data for several years including 2007 showed that the vast majority of births reported as occurring to women aged 50 years and older were to women aged 50-54 years. The numbers of births to women aged 50-54 years have been too small historically to compute age-specific birth rates. These births have been included with births to women aged 45-49 years for computing birth rates.

*Extreme values of age*-Data for single year of age of mother 9-11 and 55-64 years are not shown in the public use data files. Births to mothers 9-11 years are collapsed into the categories “12 years or under;” births to mothers 50-64 years into the category “50-54 years.”

*Populations for age-specific rates*-Age-specific birth rates are based on populations of women by age, prepared by the U.S. Census Bureau. In census years the decennial census counts are used. In intercensal years, estimates of the population of women by age are published by the U.S. Census Bureau in *Current Population Reports*. The 2011 population estimates are

from the 2010 Census as of July 1, 2011, from responses to questions on age at last birthday and month and year of birth, with the latter given preference. In the 1960, 1970, 1980, 1990, and 2000 Census of Population, age was also derived from month and year of birth. Age in completed years was asked in censuses before 1960. This was nearly the equivalent of the question of the pre-1989 birth certificates, which the 1950 test of matched birth and census records confirmed, by showing a high degree of consistency in reporting age in these two sources [14]. More recently, reporting of maternal age on the birth certificate was compared with reporting of age in a survey of women who had recently given birth. Reporting of age was very consistent between the two sources [37].

*Median and mean age of mother* -- Median age is the value that divides an age distribution into two equal parts, one-half of the values being less and one-half being greater. Median ages of mothers for 1960 to the present have been computed from birth rates for 5-year age groups rather than from birth frequencies. This method eliminates the effects of changes in the age composition of the childbearing population over time. Changes in the median ages from year to year can thus be attributed solely to changes in the age-specific birth rates. Trend data on the median age are shown in **Table 1-5** of “Vital Statistics of the United States, 2003, Volume 1, Natality” [38], which is available at: <http://www.cdc.gov/nchs/products/vsus.htm#natab2003>.

Trend data on the mean age of mother, derived directly from frequencies of births by age, are available at: <http://www.cdc.gov/nchs/products/vsus.htm#natab2003>, and for recent years, in **Table I-1**, available at [http://www.cdc.gov/nchs/data/nvsr/nvsr62/nvsr62\\_01\\_tables.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr62/nvsr62_01_tables.pdf).

*Not stated age or date of birth of mother* -- In 2011, age of mother was not reported on 0.01 percent of the records. Beginning in 1964, birth records with date of birth of mother and/or age of mother not stated have had age imputed according to the age of mother from the previous birth record of the same race and total-birth order (total of fetal deaths and live births). (See *NCHS Instruction Manuals*, Part 12) [39,40].

### **Age of father**

Information on age of father is available for the entire United States. It is derived from the father’s date of birth and is recommended to be reported directly by the mother. See the “Mother’s Worksheet for the Child’s Birth Certificate” at:

[http://www.cdc.gov/nchs/data/dvs/momswkstf\\_improv.pdf](http://www.cdc.gov/nchs/data/dvs/momswkstf_improv.pdf). Information on age of father is

often missing for children born to unmarried mothers, greatly inflating the number in the “Not stated” category in all tabulations by age of father. If the age is under 10 years, it is considered not stated and grouped with those cases for which age is not stated on the certificate. The percent of records for which father’s age is not stated is shown in **Table B**.

In computing birth rates by age of father, births tabulated as age of father not stated are distributed in the same proportions as births with known age within each 5–year-age classification of the mother. This procedure is followed because, while father’s age is missing on 13.1 percent of all births in 2011, age of father is missing for one-third (32.6%) of births to teenaged (aged 15-19 years) mothers. This distribution procedure is done separately by race. The resulting distributions are summed to form a composite frequency distribution that is the basis for computing birth rates by age of father. This procedure avoids the distortion in rates that would result if the relationship between age of mother and age of father were disregarded. Births with age of father not stated are distributed only for rates, not for frequency tabulations.

### **Marital status**

Information on marital status is available for the entire United States. It is recommended to be reported directly by the mother. See the “Mother’s Worksheet for the Child’s Birth Certificate” at: [http://www.cdc.gov/nchs/data/dvs/momswkstf\\_improv.pdf](http://www.cdc.gov/nchs/data/dvs/momswkstf_improv.pdf). National estimates of births to unmarried women are based on two methods of determining marital status. For 1994 through 1996, birth certificates in 45 states and the District of Columbia included a question about the mother's marital status. For the other states, marital status is inferred from information on the birth certificate. Beginning in 1997, the marital status of women giving birth in California and Nevada was determined by a direct question in the birth registration process. New York City also changed its procedures for inferring marital status in 1997 to the same procedures in effect in New York State, a separate registration area. Beginning June 15, 1998, Connecticut discontinued inferring the mother’s marital status and added a direct question on mother’s marital status to the state’s birth certificate. Michigan added a direct question in 2005 to the birth registration process, but used inferential procedures to update information collected using the direct question. Beginning in 2007, Michigan added a direct question on mother’s marital status to the state’s birth certificate.

*Inferential procedures*-In 2011, inferential procedures were used to compile birth

statistics by marital status in full or in part for New York. In New York, a birth is inferred as nonmarital if either of these factors, listed in priority-of-use order, is present: a paternity acknowledgment was received or the father's name is missing. In recent years, a number of states have extended their efforts to identify the fathers when the parents are not married in order to enforce child support obligations. The presence of a paternity acknowledgment, therefore, is the most reliable indicator that the birth is nonmarital in the states not reporting this information directly; this is now the key indicator in the nonreporting states. Details of the changes in reporting procedures and the impact of the procedures on the data are described in previous reports [41,42].

*Imputation of marital status*-The mother's marital status was not reported in 2011 on 0.05 percent of the birth records in the 49 states and the District of Columbia where this information is obtained exclusively by a direct question. Marital status was imputed for these records. If status was unknown and the father's age was known, then the mother was considered married. If the status was unknown, and the father's age unknown, then the mother was considered unmarried. This represents a change from the procedures in effect for 2002 and previous years. Prior to 2003, marital status for all records with marital status not reported was imputed as "married." Because of the small number of records affected (1,817 in 2011), the change in imputation procedures had essentially no impact on measures of nonmarital births.

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

## **Educational attainment**

*Mother*--Information on educational attainment of the mother is available for the revised reporting area, representing 83 percent of all U.S. births in 2011. The following eight educational categories are collected in a checkbox format (**Figure 1**):

- 8<sup>th</sup> grade or less
- 9<sup>th</sup>-12<sup>th</sup> grade, no diploma
- High school graduate or GED completed

- Some college credit but no degree
- Associate degree
- Bachelor's degree
- Master's degree
- Doctorate

The instructions are to check the box that best describes the highest degree or level of school completed at the time of the delivery. This information is recommended to be reported directly by the mother. See the “Mother’s Worksheet for the Child’s Birth Certificate,” available at: [http://www.cdc.gov/nchs/data/dvs/momswkstf\\_improv.pdf](http://www.cdc.gov/nchs/data/dvs/momswkstf_improv.pdf). See the NCHS manual for detailed descriptions of editing and computation methods [40] and **Documentation Table 2** for 2011 data. The percent of records for which mother’s education is not stated is shown in **Table B**.

*Father*--Information on educational attainment of the father is available for the revised reporting area, representing 83 percent of all U.S. births in 2011. The question is identical to that of the mother. From 1995-2008, NCHS did not collect information on the educational attainment of the father. Information on education of father is often missing on birth certificates of children born to unmarried mothers, greatly inflating the number in the “Not stated” category. While the overall percentage of “not stated” records was 16.0 percent for the reporting area (Table B), three areas (Delaware, the District of Columbia, and Wisconsin) had more than 30 percent of records with missing data for this item.

### **Live-birth order and parity**

Information on live-birth order and parity are available for the entire United States. Live-birth order and parity classifications refer to the total number of live births the mother has had including the 2011 birth. Fetal deaths are excluded.

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

one, and the mother of a baby who is a third live birth has a parity of three.

Live-birth order and parity are determined from two items on the birth certificate, “Number of previous live births now living” and “Number of previous live births now dead.” This information is recommended to be collected directly from the medical record using the facility worksheet. Detailed instructions and definitions for these items are presented in the Guide to Completing the Facility Worksheets for the Certificate of Live Birth and Report of Fetal Death (2003 Revision) [20]. See also the NCHS manual for detailed descriptions of editing and computation methods [40]. The percent of records for which live-birth order is not stated is shown in **Table B**.

In computing birth rates by live-birth order, births tabulated as birth order not stated are distributed in the same proportion as births of known live-birth order.

### **Birth interval**

Information on birth interval is available for the revised reporting area, representing 83 percent of all U.S. births in 2011. Birth intervals are computed for all births of second or higher order. The interval is computed from the infant’s date of birth (month and year) and the date of the last live birth (month and year). The 2<sup>nd</sup> and higher order births in a plural delivery are classified at intervals of 0-3 months. This information is recommended to be collected directly from the medical record using the facility worksheet. Detailed instructions and definitions are presented in the Guide to Completing the Facility Worksheets for the Certificate of Live Birth and Report of Fetal Death (2003 Revision) [20]. See the NCHS manual for detailed descriptions of editing and computation methods [40]. The percent of records for which birth interval is not stated is show in **Table B**. See **Documentation Table 11** for 2011 data.

## **Medical and Public Services Utilization**

### **Prenatal care**

Information on the timing and number of prenatal care visits is available for the revised reporting area, representing 83 percent of all U.S. births in 2011. This information is collected from the question “Date of first prenatal visit” (with a checkbox for “no prenatal care”) and “Total number of prenatal visits for this pregnancy.” The public use file includes the month of



the first prenatal visit (ranging from months 1-10 of the pregnancy) as well as the trimester of the first prenatal visit (1<sup>st</sup>, 2<sup>nd</sup>, or 3<sup>rd</sup>).

Prenatal care information is recommended to be collected directly from the prenatal care record using the facility worksheet. Detailed instructions and definitions for these items are presented in the Guide to Completing the Facility Worksheets for the Certificate of Live Birth and Report of Fetal Death (2003 Revision)[20]. See also the NCHS manual for detailed descriptions of editing and computation methods [40]. The percent of records for which month prenatal care began and number of prenatal visits are not stated are shown in **Table B**. See **Documentation Table 8** for 2011 data on month prenatal care began.

In general, data on prenatal care utilization based on the 2003 revised birth certificate are substantially lower than those based on the 1989 birth certificate. For the first year revised certificates are implemented, the percentage of women reported to begin care in the first trimester typically falls in a jurisdiction by at least 10 percentage points [1]. For example, unrevised 2007 data for Montana indicated that 84.0 percent of residents began care in the first trimester of pregnancy. This compares with a level of 73.4 percent for 2008 based on Montana revised data. Much, if not all of the difference between 2007 and 2008 for Montana and other revised states, is related to changes in reporting and not to changes in prenatal care utilization.

### **Did mother get WIC food for herself during this pregnancy?**

Information on receipt of WIC (The Special Supplemental Nutrition Program for Women, Infants, and Children) food for the mother during this pregnancy is available for the revised reporting area, representing 83 percent of all U.S. births in 2011. The WIC program, run by the U.S. Department of Agriculture, is intended to help low-income pregnant women, infants, and children through age 5 receive proper nutrition by providing vouchers for food, nutrition counseling, health care screenings and referrals [43]. This information is recommended to be reported directly by the mother. See the “Mother’s Worksheet for the Child’s Birth Certificate” for the wording of the question for the mother, available at:

[http://www.cdc.gov/nchs/data/dvs/momswkstf\\_improv.pdf](http://www.cdc.gov/nchs/data/dvs/momswkstf_improv.pdf). See the NCHS manual for detailed descriptions of editing and computation methods [40] and **Documentation Table 5** for 2011 data. The percent of records for which WIC receipt is not stated is shown in **Table B**.

## Obstetric procedures

Information on obstetric procedures is available for the revised reporting area, representing 83 percent of all U.S. births in 2011. Four obstetric procedures are separately identified on the revised 2003 certificate in a checkbox format (**Figure 1**):

- Cervical cerclage
- Tocolysis
- Successful external cephalic version
- Failed external cephalic version

Data on tocolysis are available for additional areas because this procedure is on both the 1989 and 2003 revisions of the birth certificate. Data for 2011 on tocolysis are shown in **Table I-6**, available at [http://www.cdc.gov/nchs/data/nvsr/nvsr62/nvsr62\\_01\\_tables.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr62/nvsr62_01_tables.pdf).

The obstetric procedures item allows for the reporting of more than one procedure and includes a choice of “None of the above.” If the item is not completed (i.e. none of the boxes are checked), it is classified as “not stated.” The percent of records for which obstetric procedure items were not stated is shown in **Table B**.

Information on obstetric procedures is recommended to be collected directly from the medical record using the facility worksheet. Detailed instructions and definitions are presented in the Guide to Completing the Facility Worksheets for the Certificate of Live Birth and Report of Fetal Death (2003 Revision)[20]. See also NCHS manuals for detailed descriptions of editing and computation methods [40]. See Documentation **Table 9** for 2011 data; see also Quality of Data section.

## Onset of labor

Information on onset of labor is available for the revised reporting area except for Delaware, representing 82 percent of all U.S. births in 2011. Three categories of onset of labor are separately identified on the revised 2003 certificate in a checkbox format (**Figure 1**):

- Premature rupture of membranes (prolonged,  $\geq 12$  hours)
- Precipitous labor ( $< 3$  hrs)
- Prolonged labor ( $\geq 20$  hrs)

Data on precipitous labor are available for additional areas because this category is on both the 1989 and 2003 revisions of the birth certificate. Data for 2011 on precipitous labor are shown in **Table I-6**, available at

[http://www.cdc.gov/nchs/data/nvsr/nvsr62/nvsr62\\_01\\_tables.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr62/nvsr62_01_tables.pdf).

This item allows for the reporting of more than one category of onset of labor and includes a choice of “None of the above.” However, both precipitous and prolonged labor cannot be checked as these types of labor are mutually exclusive by definition. If the onset of labor item is not completed (i.e. none of the boxes are checked), it is classified as “not stated.” The percent of records for which onset of labor items were not stated is shown in **Table B**.

Information on onset of labor is recommended to be collected directly from the medical record using the facility worksheet. Detailed instructions and definitions are presented in the Guide to Completing the Facility Worksheets for the Certificate of Live Birth and Report of Fetal Death (2003 Revision)[20]. See also the NCHS manual for detailed descriptions of editing and computation methods [40] and Documentation **Table 12** for 2011 data; see also Quality of Data section.

### **Characteristics of labor and delivery**

Information on characteristics of labor and delivery is available for the revised reporting area, representing 83 percent of all U.S. births in 2011. Nine characteristics of labor and delivery are separately identified on the revised 2003 certificate in a checkbox format (**Figure 1**):

- Induction of labor
- Augmentation of labor
- Non-vertex presentation
- Steroids received by the mother prior to delivery
- Antibiotics received by the mother during labor
- Clinical chorioamnionitis diagnosed during labor
- Moderate/heavy meconium staining of the amniotic fluid
- Fetal intolerance of labor
- Epidural or spinal anesthesia during labor

Data on induction of labor and meconium staining of the amniotic fluid are available for

additional areas because these characteristics are on both the 1989 and 2003 revisions of the birth certificate. Data for 2011 on induction of labor and meconium staining are shown in **Table I-6**, available at [http://www.cdc.gov/nchs/data/nvsr/nvsr62/nvsr62\\_01\\_tables.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr62/nvsr62_01_tables.pdf).

The characteristics of labor and delivery item allows for the reporting of more than one characteristic and includes a choice of “None of the above.” If the item is not completed (i.e. none of the boxes are checked), it is classified as “not stated.” The percent of records for which characteristics of labor and delivery is not stated is shown in **Table B**.

Information on characteristics of labor and delivery is recommended to be collected directly from the medical record using the facility worksheet. Detailed instructions and definitions for the characteristics are presented in the Guide to Completing the Facility Worksheets for the Certificate of Live Birth and Report of Fetal Death (2003 Revision)[20]. See also NCHS manuals for detailed descriptions of editing and computation methods [40]; see also Quality of Data section. See **Documentation Table 13** for 2011 data. Due to concerns with data quality, non-vertex presentation is no longer available in the public use file. See the User Guide to the 2010 Natality Public Use File for more information [21]. A report on receipt of epidural and spinal anesthesia during labor for 2008 births has been published [44].

### **Place of birth**

Information on place of birth is available for the entire United States. The following five places of birth are separately identified (**Figure 1**):

- Hospital
- Freestanding birthing center
- Home birth
- Clinic/Doctor’s office
- Other

If the item is not completed (i.e. none of the boxes are checked), it is classified as “not stated.” The percent of records for which place of birth is not stated is shown in **Table B**. Information on place of birth is recommended to be collected directly from the medical record using the facility worksheet. Detailed instructions and definitions are presented in the Guide to Completing the Facility Worksheets for the Certificate of Live Birth and Report of Fetal Death

(2003 Revision)[20]. See also NCHS manuals for detailed descriptions of editing and computation methods [40].

*Planned home births* –Information on whether the home birth was planned is available for the revised reporting area, representing 83 percent of all U.S. births in 2011. If the birth was a home birth (box checked) then the following question is asked in a checkbox format: Planned to deliver at home? Yes/ No. Control totals are as follows: of 28,533 total home births in 2011, 21,634 (76 percent) were planned, 2,959 (10 percent) were unplanned, and 3,940 (14 percent) were unknown if they were planned. Additional information on births occurring outside of hospitals can be found in “Technical appendix. Vital statistics of the United States: 1999, vol I, natality [11].

### **Time of birth**

Information on time of birth is available for the revised reporting area, representing 83 percent of all U.S. births in 2011. The instructions are to enter the time of birth based on a 24-hour (military) clock. A recode of these data grouped into 6-hour time intervals is shown in **Documentation Table 16**. Information on time of birth is recommended to be collected directly from the medical record using the facility worksheet. Detailed instructions and definitions for time of birth are presented in the Guide to Completing the Facility Worksheets for the Certificate of Live Birth and Report of Fetal Death (2003 Revision) [20]. See also the NCHS manual for detailed descriptions of editing and computation methods [40]. The percent of records for which time of birth is not stated is shown in **Table B**.

### **Attendant at birth**

Information on the attendant at birth is available for the entire United States. The following five attendants at birth are separately identified on the revised 2003 certificate in a checkbox format (**Figure 1**):

- MD
- DO
- CNM/CM
- Other midwife
- Other

If the item is not completed (i.e. none of the boxes are checked), it is classified as “not stated.” The percent of records for which attendant at birth is not stated is shown in **Table B**. Information on attendant at birth is recommended to be collected directly from the medical record using the facility worksheet. Detailed instructions and definitions are presented in the Guide to Completing the Facility Worksheets for the Certificate of Live Birth and Report of Fetal Death (2003 Revision)[20]. See also NCHS manuals for detailed descriptions of editing and computation methods [40].

*CNM-attended births*- There is evidence that the number of live births attended by certified nurse midwives [CNM] is understated [45], largely due to difficulty in correctly identifying the birth attendant when more than one provider is present at the birth. (Anecdotal evidence suggests that some hospitals require that a physician be reported as the attendant even where no physician is physically present at midwife-attended births.) Additional information on birth attendants, can be found in “Technical appendix. Vital statistics of the United States: 1999, vol I, natality [11].

### **Method of delivery**

Information on method of delivery is available for the revised reporting area, representing 83 percent of all U.S. births in 2011. Information on fetal presentation at birth and on the final route and method of delivery are collected in a checkbox format (**Figure 1**):

Fetal presentation at birth:

- Cephalic
- Breech
- Other

Final route and method of delivery:

- Vaginal/Spontaneous
- Vaginal/Forceps
- Vaginal/Vacuum
- Cesarean

If the items are not completed (i.e. none of the boxes are checked), they are classified as “not stated.” The percent of records for which fetal presentation at birth and final route and method of delivery is not stated is shown in **Table B**. Information on method of delivery is recommended to be collected directly from the medical record using the facility worksheet. Detailed instructions and definitions are presented in the Guide to Completing the Facility Worksheets for the Certificate of Live Birth and Report of Fetal Death (2003 Revision)[20]. See also NCHS manuals for detailed descriptions of editing and computation methods [40]. Due to concerns with data quality, items containing information on whether the delivery with forceps or vacuum extraction was unsuccessful are not available on the 2011 public use file.

*Trial of labor-* Information on whether a trial of labor is attempted for cesarean births is available for the revised reporting area, representing 83 percent of 2011 births. If the final route and method of delivery was cesarean (box checked) then the following question is asked in a checkbox format: If cesarean, was a trial of labor attempted? Yes/ No. See **Documentation Table 15** for 2011 data.

*Total cesarean rate-* The overall cesarean delivery rate or total cesarean rate is computed as the percent of all births delivered by cesarean. Data on the total cesarean rate are available for the entire U.S. because this item was also on the 1989 birth certificate and is comparable with the 2003 revision birth data. Data for 2011 on the total cesarean rate are shown in **Table I-7**, available at [http://www.cdc.gov/nchs/data/nvsr/nvsr62/nvsr62\\_01\\_tables.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr62/nvsr62_01_tables.pdf).

*Primary cesarean and VBAC delivery rates-*The primary cesarean and VBAC delivery rates are available for the revised reporting area, representing 83 percent of 2011 births. These rates are computed by using the information on vaginal and cesarean deliveries from the “method of delivery” item as well as information on whether the mother had a previous cesarean from the “risk factors in this pregnancy” item. The primary cesarean rate relates the number of women having a first cesarean delivery to all women giving birth who have never had a cesarean delivery. The denominator for the primary cesarean rate includes the sum of primary cesareans and vaginal births without previous cesarean. The rate of vaginal birth after previous cesarean (VBAC) delivery is computed by relating all VBAC deliveries to the sum of VBAC and repeat cesarean deliveries, that is, to women with a previous cesarean delivery. See **Documentation Table 14** for primary and VBAC rates for 2011 data. See **Documentation Table 14a** for

primary cesarean rates by state.

### **Source of payment for the delivery**

Information on the principal source of payment for the delivery is available for the revised reporting area, representing 83 percent of all U.S. births in 2011. The instructions are to check the box that best describes the principal source of payment for this delivery. Data for the following categories are available for all reporting areas (**Figure 1**):

- Private insurance
- Medicaid
- Self-pay
- Other (Specify)

In addition, more detailed information for the “other” category is available for 27 states, representing 51 percent of all U.S. births in 2011. For these states, the “other” category is further delineated into the following groups:

- Indian Health Service
- CHAMPUS/TRICARE
- Other government
- Other

Information on the source of payment for the delivery is recommended to be collected directly from the medical record using the facility worksheet. Detailed instructions and definitions for the source of payment for the delivery are presented in the Guide to Completing the Facility Worksheets for the Certificate of Live Birth and Report of Fetal Death (2003 Revision)[20]. See the NCHS manual for detailed descriptions of editing and computation methods [40]. The percent of records for which source of payment for the delivery were not stated is shown in **Table B**. See **Documentation Table 10** for 2011 data. A report on 2010 data on source of payment is forthcoming [46].

### **Maternal Lifestyle and Health Characteristics**

#### **Mother’s body mass index (BMI)**

BMI provides an indication of the mother’s body fat based on her height and pre-



pregnancy weight (see below), and is available for the revised reporting area, representing 83 percent of all U.S. births in 2011. Mother's height and pre-pregnancy weight are discussed in more detail below. Mother's BMI is calculated as:

$$[\text{mother's pre-pregnancy weight (lb)} / [\text{mother's height (in)}]^2] \times 703$$

See NCHS manuals for detailed descriptions of editing and computation of the BMI item [40]. The currently used categories for BMI were established by the National Health, Lung and Blood Institute (NHBL) in the late 1990s [47] and are shown in **Documentation Table 3** with 2011 data.

### **Weight gain during pregnancy**

Information on weight gain during pregnancy for the 2003 certificate revision is derived from mother's pre-pregnancy weight and mother's weight at delivery (see below), and is available for the revised reporting area, representing 83 percent of all U.S. births in 2011. Mother's pre-pregnancy weight and weight at delivery are discussed in more detail below. Mother's weight gain during pregnancy is calculated by subtracting the mother's pre-pregnancy weight from her weight at delivery.

Data on weight gain during pregnancy is also available from the 1989 revision of the birth certificate, from a direct question. These data are comparable with the data from the 2003 revision and thus information on weight gain during pregnancy is available for the entire U.S. Data for 2011 are shown in **Table I-5**, available at [http://www.cdc.gov/nchs/data/nvsr/nvsr62/nvsr62\\_01\\_tables.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr62/nvsr62_01_tables.pdf). Weight gain during pregnancy is reported in pounds. A reported loss of weight is recorded as zero gain. See the NCHS manual for detailed descriptions of editing and computation of the weight gain item [40].

### **Mother's height**

Information on the mother's height (in feet/inches) is available for the revised reporting area, representing 83 percent of all U.S. births in 2011. This information is recommended to be reported directly by the mother. See the "Mother's Worksheet for the Child's Birth Certificate" for the wording of the question for the mother, available at:

[http://www.cdc.gov/nchs/data/dvs/momswkstf\\_improv.pdf](http://www.cdc.gov/nchs/data/dvs/momswkstf_improv.pdf). Mother's height is one of the measurements used to compute mother's BMI (see above). The range of acceptable values for this item is 1-8 feet and 1-11 inches. See also the NCHS manual for detailed descriptions of editing and computation methods [40]. The percent of not stated records for mother's height is shown in **Table B**.

### **Mother's pre-pregnancy weight**

Information on the mother's pre-pregnancy weight (in pounds) is available for the revised reporting area, representing 83 percent of all U.S. births in 2011. This information is recommended to be reported directly by the mother. See the "Mother's Worksheet for the Child's Birth Certificate" for the wording of the question for the mother, available at:

[http://www.cdc.gov/nchs/data/dvs/momswkstf\\_improv.pdf](http://www.cdc.gov/nchs/data/dvs/momswkstf_improv.pdf). Mother's pre-pregnancy weight is one of the measurements used to compute mother's pre-pregnancy BMI (see above). Mother's pre-pregnancy weight, along with mother's weight at delivery, is used to compute the mother's weight gain during delivery (see above). The range of values accepted for mother's pre-pregnancy weight is 50-400 pounds. All other values are edited to "not stated". See also the NCHS manual for detailed descriptions of editing and computation methods [40]. The percent of not stated records for mother's pre-pregnancy weight is shown in **Table B**.

### **Mother's weight at delivery**

Information on the mother's weight at delivery (in pounds) is available for the revised reporting area, representing 83 percent of all U.S. births in 2011. Mother's weight at delivery, along with mother's pre-pregnancy weight, is used to compute the mother's weight gain during pregnancy (see above). The range of values accepted for mother's weight at delivery is 50-450 pounds. Information on mother's weight at delivery is recommended to be collected directly from the medical record using the facility worksheet. For detailed instructions and definitions for this item included on the revised 2003 certificate see: Guide to Completing the Facility Worksheets for the Certificate of Live Birth and Report of Fetal Death (2003 Revision) [20]. See also the NCHS manual for detailed descriptions of editing and computation methods [40]. The percent of not stated records for mother's weight at delivery is shown in **Table B**.

## Cigarette smoking before and during pregnancy

Information on smoking before and during pregnancy is available for the revised reporting area except for Michigan, representing 80 percent of all U.S. births in 2011.

Information on cigarette smoking before and during pregnancy is reported on the revised 2003 certificate (**Figure 1**) for:

- Three months before pregnancy
- First three months of pregnancy
- Second three months of pregnancy
- Third trimester of pregnancy

This information is recommended to be reported directly by the mother. See the “Mother’s Worksheet for the Child’s Birth Certificate” for the wording of the question for the mother, available at: [http://www.cdc.gov/nchs/data/dvs/momswkstf\\_improv.pdf](http://www.cdc.gov/nchs/data/dvs/momswkstf_improv.pdf). The question asks for the number of cigarettes (or packs) smoked for each of these periods. All entries of packs of cigarettes are converted to number of cigarettes (1 pack = 20 cigarettes). If the mother reports smoking in any of the three trimesters of pregnancy she is classified as a smoker (smoked anytime during pregnancy).

See **Documentation Table 4** for 2011 data on cigarette smoking before and during pregnancy. This table also contains information on quitting smoking before and during pregnancy. Women who report smoking in the three months prior to pregnancy but report no smoking during *all* three trimesters are considered to have quit smoking *before* pregnancy. Women who smoked in the three months prior to pregnancy and during *any* trimester are considered to have *not* quit smoking *before* pregnancy. If a woman reported smoking in the three months prior to pregnancy, and reported *not* smoking during one or more trimesters, but smoking status was unknown for *any* trimester, quitting *before* pregnancy status is classified as “unknown.”

Women who report smoking only in the first trimester and/or second trimesters, but not the third trimester, are considered to have quit smoking *during* pregnancy. If smoking status during the third trimester of pregnancy is unknown, quitting status is tabulated as “unknown.” Women with unknown smoking status for any trimester who report *not* smoking in the remaining

trimesters are classified as “unknown smoking status.”

The percent of records for which cigarette smoking before and during pregnancy were not stated is shown in **Table B**.

### **Risk factors in this pregnancy**

Information on each pregnancy risk factor is available for the revised reporting area, representing 83 percent of all U.S. births in 2011. Nine risk factors are separately identified on the revised 2003 certificate in a checkbox format (**Figure 1**):

- Prepregnancy diabetes
- Gestational diabetes
- Prepregnancy (chronic) hypertension
- Gestational (PIH, preeclampsia) hypertension
- Eclampsia
- Previous preterm birth
- Other previous poor pregnancy outcome
- Pregnancy resulted from infertility treatment
- Previous cesarean delivery

Four of the pregnancy risk factors (diabetes (combined prepregnancy and gestational), prepregnancy hypertension, gestational hypertension, and eclampsia) are available for additional areas because they are on both the 1989 and 2003 revisions of the birth certificate. Data for 2011 on these risk factors are shown in **Table I-6**, available at [http://www.cdc.gov/nchs/data/nvsr/nvsr62/nvsr62\\_01\\_tables.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr62/nvsr62_01_tables.pdf).

The checkbox format allows for the reporting of more than one risk factor and includes a choice of “None” (or “None of the above” in the case of the revised certificate). Accordingly, if the item is not completed (i.e. none of the boxes are checked), it is classified as not stated. The percent of records for which risk factors in this pregnancy is not stated is shown in **Table B**.

Information on risk factors in this pregnancy is recommended to be collected directly from the medical record using the facility worksheet. Detailed instructions and definitions for this item are presented in the Guide to Completing the Facility Worksheets for the Certificate of Live Birth and Report of Fetal Death (2003 Revision) [20]. See also the NCHS manual for

detailed descriptions of editing and computation methods [40]. See **Documentation Table 6 for 2011 data**. See also Quality of Data section.

*Diabetes during pregnancy* – The 2003 revision splits reporting of diabetes during pregnancy into prepregnancy (diagnosed prior to this pregnancy) and gestational (diagnosed in this pregnancy) diabetes. In comparison, the 1989 certificate captures information on maternal diabetes as a single item only. This change, along with more general enhancements to the collection of data under the 2003 revision, appears to have improved reporting of diabetes during pregnancy in states adopting the 2003 certificate. Improved reporting of this item as states implemented the 2003 revised birth certificate contributed to the national increase between 2003 and 2011 (see **Tables 18 and 19 of “Births: Final Data for 2011”** and **Table I-6** for 2011 rates [1]) [48]; diabetes rates rose by more than 1/3, on average, as states implemented the 2003 certificate revision, compared with less than 7 percent annual increases for unrevised states and for revised states that had used the revised certificate for two or more years. This rise in diabetes may also be the result of increased attention paid to diabetes by the medical community as well as an actual increase in the occurrence of diabetes.

*Pregnancy resulted from infertility treatment* – There is a general checkbox question about whether the pregnancy resulted from infertility treatment. If the answer is “yes” (box checked) then the infertility treatments are grouped into two separate categories:

- Fertility enhancing drugs, artificial insemination, or intrauterine insemination
- Assisted reproductive technology (e.g. in vitro fertilization (IVF), gamete intrafallopian transfer (GIFT))

A subset of the revised state reporting area – 27 states and the District of Columbia, representing 67 percent of 2011 births – reported information on the type of infertility treatment used. The instructions are to check all that apply, meaning that one or both of these responses can be reported for the same birth. ART procedures are those in which both egg and sperm are handled in the laboratory, e.g. in vitro fertilization (IVF), gamete intrafallopian transfer (GIFT). See **Documentation Table 6a** for 2011 data.

### **Infections present and/or treated during this pregnancy**

Information on infections present and/or treated during this pregnancy is available for the revised reporting area, representing 83 percent of all U.S. births in 2011. Five infections are separately identified on the revised 2003 certificate in a checkbox format (**Figure 1**):

- Gonorrhea
- Syphilis
- Chlamydia
- Hepatitis B
- Hepatitis C

This item allows for the reporting of more than one infection and includes a choice of “None of the above.” If the item is not completed (i.e. none of the boxes are checked), it is classified as “not stated.” The percent of records for which maternal infections items were not stated is shown in **Table B**.

Information on infections present and/or treated during this pregnancy is recommended to be collected directly from the medical record using the facility worksheet. Detailed instructions and definitions for the infections are presented in the Guide to Completing the Facility Worksheets for the Certificate of Live Birth and Report of Fetal Death (2003 Revision) [20]. See also NCHS manuals for detailed descriptions of editing and computation methods [40]. See Documentation **Table 7** for 2011 data.

### **Maternal morbidity**

Information on maternal morbidity is available for the revised reporting area except for Delaware, representing 82 percent of all U.S. births in 2011. The following six morbidities are separately identified on the revised certificate in a checkbox format (**Figure 1**):

- Maternal transfusion
- Third or fourth degree perineal laceration
- Ruptured uterus
- Unplanned hysterectomy
- Admission to intensive care unit
- Unplanned operating room procedure

This item allows for the reporting of more than one morbidity and includes a choice of “None of the above.” If the item is not completed (i.e. none of the boxes are checked), it is classified as “not stated.” The percent of records for which maternal morbidity items were not stated is shown in **Table B**.

Information on maternal morbidity is recommended to be collected directly from the medical record using the facility worksheet. Detailed instructions and definitions for the maternal morbidities are presented in the Guide to Completing the Facility Worksheets for the Certificate of Live Birth and Report of Fetal Death (2003 Revision)[20]. See also the NCHS manual for detailed descriptions of editing and computation methods [40]. See **Documentation Table 17** for 2011 data; see also Quality of Data section.

## **Infant Health Characteristics**

### **Period of gestation**

Information on period of gestation is available for the entire United States. The primary measure used to determine the gestational age of the infant is date last normal menses began (LMP). The LMP is used as the initial date because it can be more accurately determined than the date of conception, which usually occurs 2 weeks after the LMP. LMP measurement is subject to error for several reasons, including imperfect maternal recall or misidentification of the LMP because of post-conception bleeding, delayed ovulation, or intervening early miscarriage.

The date of birth of the infant is subtracted from the LMP date to get the gestational age of the newborn. The LMP date is recommended to be collected directly from the medical record using the facility worksheet. Detailed instructions and definitions are presented in the Guide to Completing the Facility Worksheets for the Certificate of Live Birth and Report of Fetal Death (2003 Revision) [20]. See also the NCHS manual for detailed descriptions of editing and computation methods [40].

Beginning in 1981, weeks of gestation have been imputed for records with missing day of LMP when there is a valid month and year. The imputation procedure and its effect on the data are described elsewhere [11,49]. Reporting problems for this item persist and may occur more frequently among some subpopulations, such as selected maternal race groups, and among births

with shorter gestations [39,50,51].

Births occurring before 37 completed weeks of gestation are considered to be preterm for purposes of classification. At 37–41 weeks gestation, births are considered to be term, and at 42 completed weeks and over, post-term. These distinctions are consistent with the ICD–9 and ICD–10 [8] definitions. NCHS further categorizes births at less than 34 weeks as early preterm and births at 34-36 weeks as late preterm.

The 1989 revision of the U.S. Standard Certificate of Live Birth includes an additional measure of gestational age, the item “Clinical estimate of gestation.” The comparable item on the 2003 revision of the birth certificate is the “Obstetric estimate of gestation” – see definitions [20]. The obstetric or clinical estimate (heretofore referred to as the obstetric estimate) is compared with the length of gestation computed from the LMP date when the latter appears to be inconsistent with birthweight. This is done for normal weight births of apparently short gestations and very low birthweight births reported to be full term. The procedures are described in an NCHS instruction manual [40].

The period of gestation for 5.8 percent of the births in 2011 was based on the obstetric estimate of gestation. For 98 percent of these records, the obstetric estimate was used because the LMP date was not reported. For the remaining 2 percent, the obstetric estimate was used because it was compatible with the reported birthweight, whereas the LMP-based gestation was not. In cases where the reported birthweight was inconsistent with both the LMP-computed gestation and the clinical/obstetric estimate of gestation, the LMP-computed gestation was used and birthweight was reclassified as "not stated." This was necessary for 251 births or 0.01 percent of all birth records in 2011. The levels of the adjustments were similar to those for earlier years. Despite these edits, substantial incongruities in these data persist. The percent of records for which period of gestation is not stated is shown in **Table B**.

## **Birthweight**

Information on birthweight is available for the entire United States. Birthweight is reported in some areas in pounds and ounces and in other areas as grams. However, the metric system is used to tabulate and present the statistics to facilitate comparison with data published by other groups. The categories for birthweight are consistent with the recommendations in the *International Statistical Classification of Diseases, Ninth Revision (ICD–9)* and the *International*



*Statistical Classification of Diseases, Tenth Revision (ICD–10)* [8, 52]. The categories in gram intervals and their equivalents in pounds and ounces are as follows:

Less than 500 grams = 1 lb 1 oz or less  
500–999 grams = 1 lb 2 oz–2 lb 3 oz  
1,000–1,499 grams = 2 lb 4 oz–3 lb 4 oz  
1,500–1,999 grams = 3 lb 5 oz–4 lb 6 oz  
2,000–2,499 grams = 4 lb 7 oz–5 lb 8 oz  
2,500–2,999 grams = 5 lb 9 oz–6 lb 9 oz  
3,000–3,499 grams = 6 lb 10 oz–7 lb 11 oz  
3,500–3,999 grams = 7 lb 12 oz–8 lb 13 oz  
4,000–4,499 grams = 8 lb 14 oz–9 lb 14 oz  
4,500–4,999 grams = 9 lb 15 oz–11 lb 0 oz  
5,000 grams or more = 11 lb 1 oz or more

ICD–9 and ICD–10 define low birthweight as less than 2,500 grams. Very low birthweight is defined as less than 1,500 grams.

To establish the continuity of class intervals needed to convert pounds and ounces to grams, the end points of these intervals are assumed to be half an ounce less at the lower end and half an ounce more at the upper end. For example, 2 lb 4 oz–3 lb 4 oz is interpreted as 2 lb 3 ½ oz–3 lb 4 ½ oz. The percent of records for which birthweight is not stated is shown in **Table B**. Information on birthweight is recommended to be collected directly from the medical record using the facility worksheet. Detailed instructions and definitions are presented in the Guide to Completing the Facility Worksheets for the Certificate of Live Birth and Report of Fetal Death (2003 Revision) [20]. See also the NCHS manual for detailed descriptions of editing and computation methods [40].

### **Apgar score**

*5-minute score*--Information on 5-minute Apgar score is available for the entire United States. The Apgar score is a measure of the need for resuscitation and a predictor of the infant's chances of surviving the first year of life. It is a summary measure of the infant's condition based on heart rate, respiratory effort, muscle tone, reflex irritability, and color. Each of these factors is given a score of 0, 1, or 2; the sum of these 5 values is the Apgar score, which ranges from 0 to 10. A score of 0 to 3 indicates an infant in need of resuscitation; a score of 4 to 6 is considered intermediate; a score of 7 or greater indicates that the neonate is in good to excellent

physical condition. The 5-minute score means that these factors were assessed at 5 minutes after delivery.

Information on 5-minute Apgar score is recommended to be collected directly from the medical record using the facility worksheet. Detailed instructions and definitions are presented in the Guide to Completing the Facility Worksheets for the Certificate of Live Birth and Report of Fetal Death (2003 Revision). See also the NCHS manual for detailed descriptions of editing and computation methods [40]. The percent of records for which 5-minute Apgar score is not stated is shown in **Table B**. Tabular 2011 data for the 5-minute Apgar score are shown in **Tables 18 and 19** in “Births: Final data for 2011” [1].

*10-minute score*--The 10-minute score is available for the revised reporting area, representing 83 percent of U.S. births in 2011. The 2003 revised certificate asks for a 10-minute Apgar score if the 5-minute score is less than 6. Control totals are as follows: 10-minute Apgar score was collected for 1.2 percent (37,949) of births in the reporting area in 2011; an additional 0.9 percent (30,013) of births in the reporting area had “not stated” 10-minute Apgar score for infants whose 5-minute score was less than 6. Information on 10-minute Apgar score is recommended to be collected directly from the medical record using the facility worksheet. Detailed instructions and definitions are presented in the Guide to Completing the Facility Worksheets for the Certificate of Live Birth and Report of Fetal Death (2003 Revision) [20]. See also the NCHS manual for detailed descriptions of editing and computation methods [40].

### **Abnormal conditions of the newborn**

Information on abnormal conditions of the newborn is available for the revised reporting area, representing 83 percent of all U.S. births in 2011. Seven conditions are separately identified on the revised 2003 certificate in a checkbox format (**Figure 1**):

- Assisted ventilation required immediately following delivery
- Assisted ventilation required for more than six hours
- NICU admission
- Newborn given surfactant replacement therapy
- Antibiotics received by the newborn for suspected neonatal sepsis
- Seizure or serious neurological dysfunction

- Significant birth injury

This item allows for the reporting of more than one condition and includes a choice of “None of the above”. If the item is not completed (i.e. none of the boxes are checked), it is classified as “not stated.” The percent of records for which abnormal conditions are not stated is shown in **Table B**.

Information on abnormal conditions is recommended to be collected directly from the medical record using the facility worksheet. Detailed instructions and definitions for the infections are presented in the Guide to Completing the Facility Worksheets for the Certificate of Live Birth and Report of Fetal Death (2003 Revision)[20]. See also NCHS manuals for detailed descriptions of editing and computation methods [40]. See Documentation **Table 18** for 2011 data. See also Quality of Data section.

### **Congenital anomalies of the newborn**

Information on congenital anomalies of the newborn is available for the revised reporting area, representing 83 percent of all U.S. births in 2011. Twelve anomalies are separately identified on the revised 2003 certificate in a checkbox format (**Figure 1**):

- Anencephaly
- Meningomyelocele/Spina bifida
- Cyanotic congenital heart disease
- Congenital diaphragmatic hernia
- Omphalocele
- Gastroschisis
- Limb reduction defect
- Cleft lip with or without cleft palate
- Cleft palate alone
- Down Syndrome
- Suspected chromosomal disorder
- Hypospadias

Six of these anomalies or anomaly groups: Anencephaly, Meningomyelocele/Spinda

bifida, Congenital diaphragmatic hernia, Omphalocele/Gastroschisis, Cleft lip with or without Cleft palate, and Down Syndrome are available for additional areas because they are on both the 1989 and 2003 revisions of the birth certificate. Data for 2011 shown in **Table I-6**, available at [http://www.cdc.gov/nchs/data/nvsr/nvsr62/nvsr62\\_01\\_tables.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr62/nvsr62_01_tables.pdf).

This item allows for the reporting of more than one anomaly and includes a choice of “None of the above”. If the item is not completed (i.e. none of the boxes are checked), it is classified as “not stated.” The percent of records for which congenital anomalies are not stated is shown in **Table B**.

Information on congenital anomalies is recommended to be collected directly from the medical record using the facility worksheet. Detailed instructions and definitions are presented in the Guide to Completing the Facility Worksheets for the Certificate of Live Birth and Report of Fetal Death (2003 Revision) [20]. Data for the congenital anomaly “Hypospadias,” are edited to exclude this condition where the infant is a female. See also the NCHS manual for detailed descriptions of editing and computation methods [40]. See Documentation **Table 19** for 2011 data. See also Quality of Data section.

*Down Syndrome and suspected chromosomal disorder-* The 2003 certificate includes a general checkbox question about whether Down Syndrome and suspected chromosomal disorder are present. If “yes” (box checked) then the following question is asked: karyotype pending karyotype confirmed. These responses should be combined for a “yes” response.

## **Plurality**

Information on plurality is available for the entire United States. Plurality is classified as single, twin, triplet, quadruplet, and quintuplet and higher order births. Each record in the public use natality file represents an individual birth. For example, a record coded as a twin represents one birth in a twin delivery. Pairs or sets of twins or higher order multiple births are not identified in this file. The Matched Multiple Birth File 1995-2000 [53] includes an item which identifies sets of twin, triplet and quadruplets, thus allowing for the analysis of maternal and infant characteristics of sets of births and fetal deaths in multiple deliveries.

Records for which plurality is unknown are imputed as singletons. This occurred for 0.003 percent of all records for 2011. Information on plurality is recommended to be collected directly from the medical record using the facility worksheet. Detailed instructions and

definitions are presented in the Guide to Completing the Facility Worksheets for the Certificate of Live Birth and Report of Fetal Death (2003 Revision) [20]. See also NCHS manuals for detailed descriptions of editing and computation methods [40].

### **Infant breastfed**

Information on whether the infant was being breastfed during the period from birth to discharge from the hospital is available for the revised reporting area except California and Delaware, representing 70 percent of all U.S. births in 2011. The item asks the question: Is the infant being breastfed at discharge? Yes/No. The intent to breastfeed, without having initiated it by the time of hospital discharge, is not considered a “yes” response.

Information on infant breastfed is recommended to be collected directly from the medical record using the facility worksheet. Detailed instructions and definitions for this item are presented in the Guide to Completing the Facility Worksheets for the Certificate of Live Birth and Report of Fetal Death (2003 Revision) [20]. See also NCHS manuals for detailed descriptions of editing and computation methods [40]. The percent of records for which infant breastfed at discharge are not stated is shown in **Table B**. See **Documentation Table 5** for 2011 data. See also Quality of Data section.

### **Definitions of medical terms**

For definitions and discussion of the maternal and infant health characteristics, see “Guide to Completing the Facility Worksheets for the Certificate of Live Birth and Report of Fetal Death” [20].

### **Quality of Data**

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

Most of the factors limiting the use of data arise from imperfections (missing or misclassified) in the original records or from the impracticability of tabulating these data in very

detailed categories. These limitations should not be ignored, but their existence does not lessen the value of the data for most general purposes.

*Completeness of registration* — It is estimated that more than 99 percent of all births occurring in the United States in 2011 were registered. This estimate is based on the results of a national 1964–68 test of birth-registration completeness according to place of delivery (in or out of hospital) and race (white and non-white) [54]. This test has not been conducted more recently.

*Completeness of reporting* — Interpretation of birth certificate data must include evaluation of item completeness. The “Not stated” percentage is one measure of the quality of the data. Completeness of reporting varies among items and states. See **Table B** for the percentage of birth records on which specified items were not stated. In this table, there are items comparable to the two revisions, and items exclusive to the 2003 revision. Items exclusive to the 1989 revision are no longer included in the public-use file.

Data users should note that levels of incomplete or inaccurate reporting for some of the items are quite high in some states. See **Table B**.

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

*Comparison with medical records*-Studies were undertaken in two states to assess the extent to which the data on the birth certificate accurately reflected what was in the medical record (considered to be the gold standard). This report showed that there were a number of items on the birth certificate that are collected in such a manner so that exact agreement with the medical records for non-check box items and sensitivity for checkbox items were high. However, some of the health and medical condition items on the birth certificate are likely underreported [55]. See the full results of the quality report available at [http://www.cdc.gov/nchs/data/nvsr/nvsr62/nvsr62\\_02\\_tables.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr62/nvsr62_02_tables.pdf).

*Rarely occurring events*-There were not enough cases of some of the rarer conditions listed on the birth certificate to assess data quality in the study above. An example of some of these are maternal morbidities, such as ruptured uterus and unplanned hysterectomy. These may be underreported on the birth certificate when compared with results from large multi-center studies and nationally representative survey data. For example, the rate of uterine rupture for women with a previous cesarean who delivered singletons at term (37 or more weeks of completed gestation) was 0.32% in 1999-2002 in a National Institute for Child Health and Development (NICHD) 19-institution cohort study [56] compared with 0.07% for comparable birth certificate data in 2011. Likewise, a study using the Nationwide Inpatient Sample found a postpartum hysterectomy rate of 0.08 percent for deliveries in 2006-2007 compared with 0.04 percent for birth certificate data in 2011 [57]. Although there are other reasons for the differences in the rates, such as the differing time periods under study, these are examples which suggest that the birth certificate data are likely underreported.

It is well documented that congenital anomalies, except for the most visible and most severe, have historically been under-reported on birth certificates [58]. This has been attributable, at least in part, to the inclusion of anomalies on the 1989 U.S. Standard Certificate of Live Birth which may be difficult to detect within the short period between birth and completion of the child's birth certificate. The 2003 revision of the US Standard Certificate attempted to improve reporting of congenital anomalies by including only those diagnosable within 24 hours of birth using conventional, widely available diagnostic techniques [17,25]. However, it is not clear as to whether these efforts were successful because the instances of the anomalies were too few to be included in the quality study above and there have yet to be other quality studies assessing these data.

*State-specific data quality issues of particular concern for 2011*--The reporting flags for the items listed below are set to “not reporting” in the public use file:

Arkansas:

- Tocolysis – The level of tocolysis is inflated due to inaccurate reporting. Data for this item for this state should be used with caution.

Delaware:

- Numerous data items – the following data items for Delaware are considered to be inaccurate, due to underreporting, and should be used with caution. These items have been excluded from **Documentation Tables 5, 9, 12, 13, 17, 18.**
  - Obstetric procedures - tocolysis
  - Onset of labor – all items
  - Characteristics of labor and delivery – steroids for fetal lung maturation, moderate/heavy staining of amniotic fluid, fetal intolerance of labor
  - Maternal morbidity – all items
  - Abnormal conditions of the newborn – assisted ventilation required immediately following delivery, assisted ventilation required for more than six hours, newborn given surfactant replacement therapy, antibiotics received by the newborn, seizure or serious neurological dysfunction, significant birth injury (all items with the exception of NICU admission)
  - Is the infant being breastfed at discharge?

Georgia:

- Successful and failed external cephalic version (ECV) – The levels of successful ECV and failed ECV are inflated due to inaccurate reporting. Data for these items for this state should be used with caution and have been excluded from **Documentation Table 9.**

Illinois:

- Successful and failed external cephalic version (ECV) – The level of successful ECV and failed ECV is inflated due to inaccurate reporting. Data for this item for this state should



be used with caution and have been excluded from **Documentation Table 9**.

Louisiana:

- Successful and failed external successful version (ECV) – The level of successful ECV and failed ECV is inflated due to inaccurate reporting. Data for this item for this state should be used with caution and have been excluded from **Documentation Table 9**.

Maryland:

- Successful and failed external successful version (ECV) – The level of successful ECV and failed ECV is inflated due to inaccurate reporting. Data for this item for this state should be used with caution and have been excluded from **Documentation Table 9**.

Ohio

- Successful and failed external cephalic version (ECV) – The level of successful ECV and failed ECV is inflated due to inaccurate reporting. Data for this item for this state should be used with caution and have been excluded from **Documentation Table 9**.

Oklahoma

- Congenital diaphragmatic hernia (CDH) – The level of CDH is inflated due to inaccurate reporting. Data for this item for this state should be used with caution and have been excluded from **Documentation Table 19**.

*Data quality issues for Northern Marianas for 2011*--Several data items for the Northern Marianas had very high not stated values, over 80 percent, and these data should be used with caution. See **Table B**.

## **Computation of Rates and Other Measures**

### **Population denominators**

*2011 population estimates*-Birth and fertility rates for 2011 shown in **Tables A, B, C, 1, 3–5, 7–9, 12–14, and 17** of the 2011 Final Report [1] are based on populations estimated from the 2010 census as of July 1, 2011. These populations are shown in **Table 1**. The population estimates have been provided by the U.S. Census Bureau [59] and are based on the 2010 census counts by age, race, and sex, which have been modified to be consistent with OMB racial categories as of 1977 and historical categories for birth data. The modification procedures are described in detail elsewhere [33].

Birth and fertility rates by state shown in the 2011 Final Report [1] are based on state-level population counts based on the 2010 census provided by the U.S. Census Bureau [59]. Birth and fertility rates for the territories except Puerto Rico are based on population estimates provided by the U.S. Census Bureau's International Data Base [60]. Rates for Puerto Rico are based on population estimates from the 2010 census as of July 1, 2011, and are provided by the U.S. Census Bureau [61].

Rates by state and territory shown in this report may differ from rates computed on the basis of other population estimates; rates for smaller population subgroups such as those for teen mothers may be particularly affected by differences in population estimates. Birth and fertility rates by month shown in Internet **Table I-2** are based on monthly population estimates also based on the 2010 census estimates. Rates for unmarried women shown in **Tables 15 and 16** are based on distributions of the population by marital status averaged over a 3-year period for 2010–2012 as reported by the U.S. Census Bureau in the March Current Population Survey (CPS) for each year [62-64], which have been adjusted to July 1, 2011 (2010 census), population levels [59] by NCHS' Division of Vital Statistics [41].

### **Population estimates for the specific Hispanic groups**

Beginning in 2011, birth and fertility rates for the specific Hispanic population groups (Mexican, Puerto Rican, Cuban, Central and South America, and Other Hispanic populations), shown in **Tables 5, 7-9, and 14** of the 2011 Final Report [1], are based on population estimates derived from the 1-year American Community Survey (ACS) [65] and adjusted to the U.S. resident population control totals by the U.S. Census Bureau. Rates for the specific Hispanic population groups prior to 2010 shown in the 2011 Final Report were based on population estimates derived from the Current Population Survey (CPS) and adjusted to the U.S. resident population control totals by the U.S. Census Bureau and/or NCHS' Division of Vital Statistics. The change to the ACS-based rates was made because ACS estimates are more statistically reliable and represent the entire United States population. ACS estimates are based on an approximately 3 million annual sample of the U.S. population, including all households (civilian and military) and the institutionalized population (persons living in group quarters) [66]. CPS estimates are based on an approximate 200,000 sample of only the *civilian, non-institutionalized* U.S. population [67]. The larger ACS sample makes it possible to show rates in the 2011 Final

Report in more detail than in previous years, especially for Cuban and Puerto Rican women. The 2011 population estimates are derived from the 2011 1-year ACS and are adjusted according to the (2010-based) postcensal estimates for July 1, 2011. The 2010 birth and fertility rates for the specific Hispanic population groups were also revised using 2010 ACS-based population estimates which were adjusted to the (2010-based) postcensal estimates for July 1, 2010. The 2011 special population estimates for Hispanic groups are presented in **Table 1**.

### **Revised population estimates**

Birth and fertility rates by race for 2001–2009 shown in this report have been revised based on newly released revised intercensal population estimates based on the 2000 and 2010 censuses, as of July 1 of each year, to provide more accurate rates for the period [68]. A full series of revised rates by state and by live birth order and age for 2001–2009 based on these newly released revised population estimates is forthcoming. These newly revised rates may differ from the intercensal rates published in *Births: Final Data for 2010* and the original rates published in *Births: Final Data for 2009* and earlier reports which were based on 2000 postcensal population estimates [69,70]. Differences in the newly revised intercensal rates compared with previous intercensal rates are slight and may vary by age and race and Hispanic origin population group.

The populations by race used in this report were produced under a collaborative arrangement with the U.S. Census Bureau and are based on the 2010 census counts. Reflecting the new OMB guidelines issued in 1997, the 2010 census (and 2000 census) included an option for persons to report more than one race as appropriate for themselves and household members [31]. In addition, the 1997 OMB guidelines called for the reporting of Asian persons separately from NHOPI. In the earlier 1977 OMB guidelines, data for API persons were collected as a single group [32]. For the nonmultiple-race reporting areas (10 states, American Samoa, U.S. Virgin Islands, and Puerto Rico), birth certificates currently report only one race for each parent in the categories specified in the 1977 OMB guidelines (see “Hispanic origin and race”). In addition, birth certificate data for the states using the 1989 birth certificate revision do not report Asians separately from NHOPI. Thus, birth certificate data by race (the numerators for birth and fertility rates) currently are largely incompatible with the population data collected in the 2010 census (the denominators for the rates).

To produce birth and fertility rates for 1991 through 2011, the reported population data for multiple-race persons were bridged to single-race categories. In addition, the 2010 (and 2000) census counts were modified to be consistent with the 1977 OMB racial categories, that is, to report the data for Asian and NHOPI persons as the combined category of API [59]. The procedures used to produce the bridged populations are described in a separate publication [33].

Population estimates for the specified Hispanic groups from 2001 through 2009 shown in the 2011 Final Report are not currently available from the U.S. Census Bureau and rates have been revised using population estimates prepared by DVS. The population estimates were produced by applying proportions derived from the 2000-based population estimates (according to year, sex, and age for the specified Hispanic population groups) to the 2010-based population of Hispanic females by age group, and adjusting the sum of the population estimates to be consistent with the total population of Hispanics females by age (2010 based). These populations are available upon request ([Births@cdc.gov](mailto:Births@cdc.gov)).

The population data used to compile birth and fertility rates by race and ethnicity shown in the 2011 Final Report are based on special estimation procedures and are not actual counts. This is the case even for the 2000 and 2010 populations that are based on the 2000 and 2010 censuses. As a result, the estimation procedures used to develop these populations may contain some errors. Smaller populations, for example, AIAN, are likely to be affected much more than larger populations by potential measurement error [33]. Although the nature and magnitude of error is unknown, the potential for error should be kept in mind when evaluating trends and differentials. As more accurate information becomes available, further revisions of the estimates may be necessary.

*Residential population base* -- Birth rates for the United States and individual states are based on the total resident populations of the respective areas (**Table 2**). These populations exclude the Armed Forces abroad but include the Armed Forces stationed in each area. The residential population of the birth- and death-registration states for 1900–1932 and for the United States for 1900–2011 is shown in **Table 3**. In addition, the population including Armed Forces abroad is shown for the United States. **Table E** in these Notes shows the sources for these populations. A detailed discussion of historical population bases is presented elsewhere [11].

*Small populations as denominators* -- An asterisk (\*) is shown in place of any derived rate in the following situations: 1) the rate is based on fewer than 20 births in the numerator 2)

for the Hispanic subgroups, a relative standard error of 23 percent or more for the ACS-based rates of 2010-2011, or 3) there were fewer than 50 women for census years and 75,000 women for noncensus years in the denominator for the CPS-based rates for 1989-2009. Rates based on populations below these minimum levels lack sufficient reliability for analytic purposes. These guidelines follow the suggestions of the U.S. Census Bureau [71,72].

*Net census undercounts and overcounts* -- Studies conducted by the U.S. Census Bureau indicate that some age, race, and sex groups are more completely enumerated than others. Census miscounts can have consequences for vital statistics measures. For example, an adjustment to increase the population denominator would result in a smaller rate compared to the unadjusted population. A more detailed discussion of census undercounts and overcounts can be found in the “1999 Technical Appendix” [11]. Adjusted rates for 2011 can be computed by multiplying the reported rates by ratios from the 2011 census-level population adjusted for the estimated age-specific census over- and undercounts, which are shown in **Table F** of these Notes.

### **Cohort fertility tables**

Various fertility measures for cohorts of women are computed from births adjusted for underregistration and population estimates corrected for under enumeration and misstatement of age. Cohort fertility tables are available through 2005 and have recently been revised and updated to incorporate new rates for black women [73,74]. A detailed description of the methods used in deriving these measures is available in an earlier publication as well as detailed data for earlier years [75].

### **Total fertility rates**

The total fertility rate is the sum of the birth rates by age of mother (in 5-year age groups) multiplied by 5. It is an age-adjusted rate because it is based on the assumption that there is the same number of women in each age group. The rate of 1,894.5 in 2011, for example, means that if a hypothetical group of 1,000 women were to have the same birth rates in each age group that were observed in the actual childbearing population in 2011, they would have a total of 1,894.5 children by the time they reached the end of the reproductive period (taken here to be age 50 years), assuming that all of the women survived to that age.

### **Seasonal adjustment of rates**

The seasonally adjusted birth and fertility rates are computed from the X–11 variant of Census Method II [76]. This method, used since 1964, differs slightly from the U.S. Bureau of Labor Statistics (BLS) Seasonal Factor Method, which was used for *Vital Statistics of the United States*, 1964. The fundamental technique is the same in that it is an adaptation of the ratio-to-moving-average method. Before 1964, the method of seasonal adjustment was based on the X–9 variant and other variants of Census Method II. A comparison of the Census Method II with the BLS Seasonal Factor Method shows the differences in the seasonal patterns of births to be negligible.

### **Computation of percentages, percentage distributions, and means**

Births for which a particular characteristic is unknown were subtracted from the figures for total births that were used as denominators before percentages, percentage distributions, and means were computed. The percentage of records with missing information for each item is shown by state in **Table B**. The mean age of mother is the arithmetic average of the age of mothers at the time of birth, computed directly from the frequency of births by age of mother. An asterisk is shown in place of any derived statistic based on fewer than 20 births in the numerator or denominator.

### **Computation of Measures of Variability**

#### **Random variation and significance testing for natality data**

For information and discussion on random variation and significance testing for natality data, with the exception of specified Hispanic groups (see below), see the 2010 User Guide [21].

#### **Specified Hispanic population groups**

Birth and fertility rates for Mexican, Puerto Rican, Cuban, Central and Other Hispanic populations are based on population estimates derived from the ACS [65, 66] for 2011 and adjusted to resident population control totals. As a result, the rates are subject to sampling variability in the denominator as well as random variability in the numerator [77].

The standard error for birth and fertility rates ( $SE(R)$ ) is calculated as:

$$1. \quad SE(R) = R \sqrt{\frac{1}{B} + \left(\frac{SE(P)}{P}\right)^2}$$

where  $R$  denotes the fertility or birth rate,  $B$  the number of births,  $SE(P)$  the standard errors of the ACS population estimates,  $P$ . The standard errors of ACS population estimates used in the 2011 Final Report are presented in Table 1 with the population estimates by Mexican, Puerto Rican, Cuban, and Other Hispanic.

When the number of births is large, a normal approximation may be used in calculating confidence intervals and statistical tests. In general, for birth and fertility rates, the normal approximation performs well when the number of births is 100 or greater. Formula 2 is used to calculate 95 percent confidence limits for the birth or fertility rate when the normal approximation is appropriate:

$$2. \quad L(R) = R - 1.96(SE(R)) \text{ and } U(R) = R + 1.96(SE(R))$$

Or, substituting the relative standard error terms in formula 2,

$$3. \quad L(R) = R - 1.96 \left( R \sqrt{\frac{1}{B} + \left(\frac{SE(P)}{P}\right)^2} \right) \text{ and } U(R) = R + 1.96 \left( R \sqrt{\frac{1}{B} + \left(\frac{SE(P)}{P}\right)^2} \right)$$

where  $L(R)$  and  $U(R)$  are the lower and upper limits of the confidence interval, respectively. The resulting 95 percent confidence interval can be interpreted to mean that the chances are 95 in 100 that the “true” birth or fertility rate falls between  $L(R)$  and  $U(R)$ .

For example, suppose that the general fertility rate for Mexican women is 76.8 per 1,000 women age 15-44 (based on 587,429 births and a population of 7,648,815 women). The standard error of

the ACS population estimate is 293,528. Lower and upper 95 percent confidence limits using Formula 3 are calculated as:

$$L(76.8) = 76.8 - 1.96(2.949) = 71.0 \text{ and } U(76.8) = 76.8 + 1.96(2.949) = 82.6$$

Thus, the chances are 95 in 100 that the true fertility rate for Mexican women is between 71.0 and 82.6.

When testing the difference between two rates,  $R_1$  and  $R_2$  (each based on 100 or more births), the normal approximation may be used to calculate a test statistic,  $z$ , such that:

$$4. \quad z = \frac{R_1 - R_2}{\sqrt{SE(R_1)^2 + SE(R_2)^2}}$$

Or, substituting the relative standard error terms in formula 4,

$$5. \quad z = \frac{R_1 - R_2}{\sqrt{\left( R_1^2 \times \left( \frac{1}{B_1} + \left( \frac{SE(P_1)}{P_1} \right)^2 \right) \right) + \left( R_2^2 \times \left( \frac{1}{B_2} + \left( \frac{SE(P_2)}{P_2} \right)^2 \right) \right)}}$$

If  $|z| \geq 1.96$ , then the difference between the rates is statistically significant at the 0.05 level. If  $|z| < 1.96$ , then the difference is not statistically significant.

For example, suppose that the general fertility rate for Mexican women is 79.2 per 1,000 women age 15-44 (based on 599,417 births and a population of 7,568,396 women) in the previous data year ( $R_1$ ) and 76.8 in the current data year ( $R_2$ ) (based on 587,429 births and a population of 7,648,815 women). The standard errors of the ACS population estimates are 293,475 and 293,528, respectively. A test using Formula 5 can determine if the decrease in the general fertility rate is statistically significant:



$$z = \frac{79.2 - 76.8}{\sqrt{9.442 + 8.696}} = 0.56$$

Because  $z = 0.56 < 1.96$ , the change from the previous data year to the current data year in the general fertility rate for Mexican women is not statistically significant.

## References

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**Table A. Births by place of occurrence and residence for births occurring in the 50 states, the District of Columbia, and U.S. territories, 2011**

Area	Number live births	
	Occurrence <sup>1</sup>	Residence <sup>1,2</sup>
United States	3,961,220	3,953,590
Alabama	57,891	59,354
Alaska	11,339	11,456
Arizona	86,103	85,543
Arkansas	37,855	38,715
California	503,018	502,120
Colorado	65,514	65,055
Connecticut	37,988	37,281
Delaware	11,631	11,257
District of Columbia	13,836	9,295
Florida	213,716	213,414
Georgia	133,828	132,409
Hawaii	18,971	18,956
Idaho	21,859	22,305
Illinois	157,737	161,312
Indiana	84,582	83,701
Iowa	38,040	38,214
Kansas	40,472	39,642
Kentucky	53,344	55,370
Louisiana	61,983	61,888
Maine	12,564	12,704
Maryland	70,958	73,093
Massachusetts	73,499	73,166
Michigan	113,054	114,008
Minnesota	68,115	68,409
Mississippi	38,938	39,860
Missouri	77,136	76,117
Montana	12,018	12,069
Nebraska	26,095	25,720
Nevada	35,009	35,296
New Hampshire	13,080	12,851
New Jersey	103,033	105,883
New Mexico	26,414	27,289

New York	242,864	241,312
North Carolina	121,557	120,389
North Dakota	10,772	9,527
Ohio	138,581	137,918
Oklahoma	51,315	52,272
Oregon	45,480	45,155
Pennsylvania	142,527	143,178
Rhode Island	11,729	10,960
South Carolina	54,837	57,393
South Dakota	12,470	11,846
Tennessee	84,412	79,588
Texas	384,116	377,445
Utah	52,326	51,223
Vermont	5,702	6,078
Virginia	101,032	102,652
Washington	86,954	86,976
West Virginia	20,959	20,717
Wisconsin	67,255	67,810
Wyoming	6,712	7,399

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Births occurring to US territorial residents

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Puerto Rico	---	41,080
Virgin Islands	---	1,491
Guam	---	3,294
American Samoa	---	1,256
Northern Marianas	---	1,033

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--- Data not available.

<sup>1</sup> Excludes data for the territories.

<sup>2</sup> Excludes data for foreign residents.

**Table B. Percent of birth records on which specified items were not stated: United States and each state and territory, New York City and the District of Columbia, 2011**  
**[By place of residence]**

Reporting areas	Items for which data are available for all reporting areas <sup>1</sup>									
	All births	Place of birth	Attendant at birth	Mother's birthplace	Father's age	Father's race	Hispanic Origin		Mother	Father
Total of reporting areas <sup>2</sup>	3,953,590	0.0	0.1	0.4	13.1	19.2		0.7		14.2
Alabama	59,354	0.0	0.0	0.2	19.3	20.1		0.0		19.4
Alaska	11,456	0.1	0.0	0.1	10.1	13.5		4.1		26.5
Arizona	85,543	0.0	0.0	0.0	12.2	14.3		0.3		13.6
Arkansas	38,715	-	0.0	0.8	20	23.2		0.2		20.4
California	502,120	0.0	0.1	0.1	7.6	10.9		1.7		8.5
Colorado	65,055	0.0	-	0.1	7.8	12.2		1.0		8.8
Connecticut	37,281	0.0	0.1	0.2	11.1	13.1		0.2		11.2
Delaware	11,257	-	0.1	1.0	23.4	31.8		0.2		35.3
District of Columbia	9,295	0.0	0.0	0.9	25.1	35.8		1.0		25.3
Florida	213,414	0.0	0.0	0.3	14.9	25.7		0.5		17.3
Georgia	132,409	0.0	0.0	1.1	15.3	27.6		2.1		20.6
Hawaii	18,956	-	0.1	0.1	7.8	11.4		0.1		7.8
Idaho	22,305	0.0	0.0	0.2	8.8	16.6		0.2		11.0
Illinois	161,312	0.0	0.5	0.1	13.2	15.5		0.4		14.6
Indiana	83,701	0.0	0.0	0.4	12.8	17.4		0.2		14.7
Iowa	38,214	-	0.0	0.6	11.3	17.9		0.0		14.3
Kansas	39,642	-	-	0.1	11.2	15.7		0.1		10.5
Kentucky	55,370	0.0	-	0.3	18.8	22.5		0.1		18.0
Louisiana	61,888	-	0.1	0.0	16.6	21.3		0.0		16.6
Maine	12,704	-	-	0.0	9.9	10.6		0.3		10.8
Maryland	73,093	0.0	0.3	0.4	12.2	23.3		0.3		17.1
Massachusetts	73,166	0.0	0.8	0.1	8	12.3		0.8		4.2
Michigan	114,008	0.0	0.0	0.1	16.2	19.1		0.3		16.5
Minnesota	68,409	0.0	0.5	0.2	9.4	18.8		1.0		10.5
Mississippi	39,860	-	0.0	0.1	22.1	22.5		0.1		22.6
Missouri	76,117	0.0	-	0.4	16	19.7		0.7		19.8
Montana	12,069	0.0	-	0.0	8.7	11.3		0.8		9.1
Nebraska	25,720	-	0.0	0.1	11.6	21.5		0.1		12.8
Nevada	35,296	-	0.0	0.4	14.3	18.5		0.2		16.2
New Hampshire	12,851	-	0.0	0.0	7.9	12.4		1.2		8.3
New Jersey	105,883	0.0	0.0	0.1	7.5	11.1		0.3		8.3
New Mexico	27,289	0.0	0.0	0.2	17.8	21.1		1.1		21.1
New York (excluding NYC)	121,917	0.0	0.1	0.0	10.8	16.7		0.8		11.8
New York City	119,395	-	0.0	0.2	11.5	21		2.2		15.0
North Carolina	120,389	-	0.2	0.4	17.7	28.2		0.0		17.7
North Dakota	9,527	-	-	0.6	8	11.3		1.2		10.4
Ohio	137,918	0.0	0.0	0.5	17.6	20.7		0.5		18.0
Oklahoma	52,272	-	0.0	0.1	13.7	20.3		0.2		16.3
Oregon	45,155	-	-	0.2	8.9	14.8		0.5		1.1
Pennsylvania	143,178	0.0	0.1	3.6	16.4	14.5		0.8		8.0
Rhode Island	10,960	-	0.1	0.2	11.8	28.1		2.1		13.4
South Carolina	57,393	-	0.1	0.2	26.3	31.1		0.3		26.6
South Dakota	11,846	-	0.0	0.0	10.1	12.1		0.1		10.2
Tennessee	79,588	-	0.0	0.2	17.1	24		0.1		17.1
Texas	377,445	-	0.2	0.1	14.4	24.8		0.1		14.5
Utah	51,223	-	0.0	0.2	6.6	17.5		0.0		7.2
Vermont	6,078	0.1	0.0	0.1	7.4	10.6		0.2		9.6
Virginia	102,652	0.0	0.0	0.1	12.6	15.7		0.2		13.8
Washington	86,976	-	0.1	0.7	8.7	21		1.5		13.2
West Virginia	20,717	0.0	0.0	0.1	12.4	14.7		0.4		14.5
Wisconsin	67,810	0.0	0.0	0.1	15.7	37.4		0.4		33.6
Wyoming	7,399	0.0	-	0.1	16.2	20.4		0.9		18.1
Puerto Rico	41,080	0.1	0.2	0.1	4.2	5.2		0.1		4.9
Virgin Islands	1,491	0.1	1.1	2.3	17.6	21.1		1.2		55.1
Guam	3,294	1.0	0.6	0.4	23.7	30.9		1.4		29.5
American Samoa	1,256	-	-	4.5	40.4	40.6		---		---
Northern Marianas	1,033	-	-	-	9.3	8.7		0.3		8.0

See footnotes at end of table.

**Table B. Percent of birth records on which specified items were not stated: United States and each state and territory, New York City and the District of Columbia, 2011 -- Con.**  
**[By place of residence]**

Reporting areas	Items for which data are available for all reporting areas <sup>1</sup>					
	Live-birth order	Number of prenatal visits	Weight gain	Period of gestation	Birthweight	5-minute Apgar score
Total of reporting areas <sup>2</sup>	0.7	3.5	5.0	0.1	0.1	0.5
Alabama	0.1	0.4	0.8	0.0	0.0	0.2
Alaska	1.0	8.0	10.5	0.2	0.1	0.3
Arizona	0.4	0.3	2.1	0.0	0.0	0.1
Arkansas	0.6	2.8	5.5	0.2	0.0	0.2
California	0.0	2.4	6.0	0.1	0.0	0.6
Colorado	0.1	1.4	2.9	0.0	0.0	0.2
Connecticut	0.0	1.0	1.1	0.1	0.1	0.2
Delaware	0.1	2.0	2.1	0.0	0.0	0.3
District of Columbia	1.3	12.3	7.4	0.1	0.1	0.2
Florida	0.6	2.5	5.8	0.1	0.0	0.2
Georgia	5.8	17.2	21.1	0.3	0.5	0.5
Hawaii	0.1	3.9	11.1	0.1	0.0	0.4
Idaho	0.1	0.4	0.5	0.0	0.0	0.3
Illinois	2.0	2.4	3.4	0.1	0.1	0.2
Indiana	0.2	0.8	1.3	0.1	0.1	0.3
Iowa	0.1	0.3	1.0	0.1	0.0	0.3
Kansas	0.0	2.0	3.2	0.1	0.1	0.4
Kentucky	0.0	3.7	2.6	0.0	0.0	0.2
Louisiana	2.8	1.3	4.4	0.1	0.1	0.2
Maine	0.1	0.4	1.4	0.1	0.1	0.2
Maryland	4.7	7.8	8.8	0.1	0.1	0.3
Massachusetts	1.7	5.3	12.8	1.6	1.7	1.7
Michigan	0.1	3.1	4.6	0.1	0.1	0.2
Minnesota	1.6	4.2	7.5	0.1	0.1	0.3
Mississippi	0.0	0.3	2.4	0.1	0.0	0.4
Missouri	0.9	9.0	5.1	0.2	0.4	0.7
Montana	0.1	1.8	2.3	0.1	0.1	0.4
Nebraska	1.2	1.4	2.6	0.1	0.0	0.2
Nevada	0.4	17.0	4.3	0.1	0.0	0.2
New Hampshire	1.3	1.3	8.5	0.3	0.1	0.3
New Jersey	0.1	0.2	0.9	0.0	0.1	0.1
New Mexico	1.3	4.3	7.5	0.0	0.2	0.1
New York (excluding NYC)	1.1	4.6	4.8	0.2	0.2	0.6
New York City	0.1	1.1	0.9	0.0	0.0	0.3
North Carolina	0.0	0.8	3.6	0.0	0.1	0.3
North Dakota	0.1	1.0	1.2	0.0	0.0	0.1
Ohio	1.2	9.1	9.3	0.1	0.1	0.3
Oklahoma	0.1	4.1	2.6	0.1	0.1	0.3
Oregon	0.4	2.4	3.2	0.0	0.0	0.1
Pennsylvania	0.3	5.8	12.5	0.3	0.3	0.4
Rhode Island	2.2	3.2	14.7	0.1	0.1	0.4
South Carolina	0.1	0.5	2.1	0.0	0.1	0.2
South Dakota	0.1	1.7	2.5	0.0	0.1	0.3
Tennessee	0.4	8.3	6.5	0.4	0.0	1.7
Texas	0.0	0.4	0.9	0.0	0.0	1.3
Utah	0.0	1.4	2.2	0.0	0.0	0.2
Vermont	0.2	0.7	3.0	0.1	0.1	0.3
Virginia	0.1	0.7	0.7	0.0	0.1	0.1
Washington	0.7	7.6	6.5	0.1	0.2	0.3
West Virginia	0.0	0.7	0.9	0.1	0.1	0.2
Wisconsin	0.1	4.2	2.5	0.0	0.0	0.3
Wyoming	0.0	0.4	1.6	0.0	0.1	0.1
Puerto Rico	0.0	0.3	0.9	0.3	0.4	0.9
Virgin Islands	3.2	8.9	27.1	1.1	1.9	1.8
Guam	9.8	16.6	22.4	0.5	0.8	1.4
American Samoa	-	---	---	---	0.1	---
Northern Marianas <sup>3</sup>	81.1	88.4	86.6	0.5	0.1	0.4

See footnotes at end of table.

**Table B. Percent of birth records on which specified items were not stated: United States and each state and territory, New York City and the District of Columbia, 2011 -- Con.**  
**[By place of residence]**

Reporting areas	Risk Factors in this Pregnancy		Obstetric Procedures	
	All reporting areas <sup>1,4</sup>	Revised area <sup>5,6</sup>	All reporting areas <sup>1,7</sup>	Revised area <sup>5,8</sup>
Total of reporting areas <sup>2</sup>	0.5	0.8	0.5	0.8
Alabama	0.1	---	0.1	---
Alaska	17.4	---	16.7	---
Arizona	0.0	---	0.0	---
Arkansas <sup>9</sup>	0.0	---	---	---
California	0.0	0.0	0.0	0.1
Colorado	0.0	0.0	0.0	0.0
Connecticut	1.6	---	0.0	---
Delaware <sup>10</sup>	-	0.3	---	0.3
District of Columbia	2.0	5.8	9.2	12.9
Florida	0.4	0.5	0.4	0.6
Georgia <sup>11</sup>	4.4	4.5	6.3	6.4
Hawaii	0.0	---	-	---
Idaho	0.1	0.1	0.1	0.1
Illinois <sup>11</sup>	0.4	0.4	0.4	0.5
Indiana	0.0	0.0	0.0	0.0
Iowa	0.0	0.1	0.0	0.1
Kansas	-	0.0	-	0.0
Kentucky	0.2	0.7	0.2	0.7
Louisiana <sup>11</sup>	0.0	0.8	0.0	0.8
Maine	0.2	---	0.2	---
Maryland <sup>11</sup>	0.2	1.3	0.3	1.3
Massachusetts	0.5	---	1.6	---
Michigan	1.3	1.3	1.5	1.5
Minnesota	1.6	---	1.7	---
Mississippi	0.0	---	0.0	---
Missouri	-	0.3	-	0.3
Montana	0.0	0.0	0.3	0.4
Nebraska	0.5	0.5	0.5	0.6
Nevada	0.0	0.2	0.0	0.2
New Hampshire	-	1.8	1.2	2.9
New Jersey	0.3	---	0.1	---
New Mexico	-	0.4	0.0	0.4
New York (excluding NYC)	0.4	2.1	0.8	2.6
New York City	0.0	0.5	0.4	0.9
North Carolina	0.0	0.5	0.0	0.5
North Dakota	0.0	0.4	0.0	0.4
Ohio <sup>11</sup>	1.9	3.1	0.0	1.2
Oklahoma	0.0	1.6	0.0	1.6
Oregon	0.0	0.0	0.0	0.0
Pennsylvania	0.0	0.9	0.0	0.9
Rhode Island	2.6	---	2.5	---
South Carolina	0.0	0.1	0.1	0.1
South Dakota	0.1	0.2	0.1	0.3
Tennessee	0.0	0.4	0.0	0.4
Texas	0.0	0.0	0.0	0.0
Utah	0.0	0.1	0.0	0.1
Vermont	0.4	0.6	0.3	0.5
Virginia	0.0	---	0.1	---
Washington	0.6	0.6	0.4	0.4
West Virginia	0.2	---	0.1	---
Wisconsin	0.3	0.7	0.2	0.6
Wyoming	-	0.0	-	0.0
Puerto Rico	0.0	0.0	0.0	0.0
Virgin Islands	9.4	---	6.0	---
Guam	1.5	---	3.7	---
American Samoa	---	---	---	---
Northern Marianas	---	---	---	---

See footnotes at end of table.

Table B. Percent of birth records on which specified items were not stated: United States and each state and territory, New York City and the District of Columbia, 2011 -- Con.  
[By place of residence]

Reporting areas	Onset of labor		Characteristics of labor and delivery			
	All reporting areas <sup>1,12</sup>	Revised area <sup>5,13</sup>	All reporting areas <sup>1,14</sup>		Revised area <sup>5,15</sup>	
			Induction of Labor	Meconium		
Total of reporting areas <sup>2</sup>	0.5	0.8	0.3	0.3	0.6	
Alabama	0.0	---	0.0	0.0	---	
Alaska	17.3	---	16.7	17.3	---	
Arizona	0.0	---	0.0	0.0	---	
Arkansas	0.0	---	0.0	0.0	---	
California	0.0	0.1	0.0	0.0	0.1	
Colorado	0.0	0.1	0.0	0.0	0.0	
Connecticut	0.0	---	0.0	0.0	---	
Delaware <sup>10</sup>	---	---	-	---	0.3	
District of Columbia	2.5	6.3	3.3	3.3	7.1	
Florida	0.4	0.6	0.1	0.1	0.2	
Georgia	4.9	5.0	4.0	4.0	4.1	
Hawaii	-	---	-	-	---	
Idaho	0.1	0.1	0.1	0.1	0.1	
Illinois	0.4	0.5	0.2	0.2	0.2	
Indiana	0.0	0.0	0.0	0.0	0.0	
Iowa	0.0	0.1	-	-	0.1	
Kansas	-	0.0	-	-	0.0	
Kentucky	0.2	0.8	-	0.1	0.6	
Louisiana	-	0.8	-	-	0.8	
Maine	0.4	---	0.1	0.2	---	
Maryland	0.2	1.4	0.1	0.1	1.3	
Massachusetts	1.7	---	1.7	1.7	---	
Michigan	1.5	1.5	0.3	0.3	0.3	
Minnesota	1.7	---	1.6	1.6	---	
Mississippi	0.0	---	0.0	0.0	---	
Missouri	-	0.3	-	-	0.3	
Montana	0.1	0.2	0.1	0.1	0.1	
Nebraska	0.3	0.4	0.2	0.2	0.2	
Nevada	0.0	0.2	0.0	0.0	0.2	
New Hampshire	2.3	4.1	0.7	0.7	2.5	
New Jersey	0.2	---	0.1	0.2	---	
New Mexico	0.2	0.5	-	-	0.4	
New York (excluding NYC)	1.1	2.9	0.0	0.0	1.8	
New York City	0.5	0.9	0.2	0.2	0.6	
North Carolina	0.0	0.5	0.0	0.0	0.5	
North Dakota	0.0	0.4	0.1	0.1	0.4	
Ohio	0.0	1.2	1.0	1.0	2.1	
Oklahoma	0.0	1.6	0.0	0.0	1.6	
Oregon	0.0	0.0	0.1	0.1	0.2	
Pennsylvania	0.0	0.9	0.0	0.0	0.9	
Rhode Island	2.7	---	2.5	2.7	---	
South Carolina	0.0	0.1	0.0	0.0	0.0	
South Dakota	0.1	0.2	0.0	0.0	0.2	
Tennessee	0.0	0.4	0.0	0.0	0.4	
Texas	0.0	0.0	-	0.0	0.0	
Utah	0.0	0.1	0.0	0.0	0.1	
Vermont	0.7	0.8	0.2	0.2	0.4	
Virginia	0.0	---	0.0	0.0	---	
Washington	0.6	0.6	0.4	0.4	0.4	
West Virginia	0.1	---	0.1	0.1	---	
Wisconsin	0.3	0.7	0.2	0.2	0.6	
Wyoming	-	0.0	-	-	0.0	
Puerto Rico	0.0	0.0	0.0	0.0	0.0	
Virgin Islands	13.7	---	6.0	13.7	---	
Guam	3.3	---	2.2	2.2	---	
American Samoa	---	---	---	---	---	
Northern Marianas	---	---	---	---	---	

See footnotes at end of table.

**Table B. Percent of birth records on which specified items were not stated: United States and each state and territory, New York City and the District of Columbia, 2011 -- Con.**  
**[By place of residence]**

Reporting areas	Method of Delivery				Congenital anomalies of the newborn	
	All reporting areas <sup>1,16</sup>		Revised area <sup>5,17</sup>		All reporting areas <sup>1,18</sup>	Revised area <sup>5,19</sup>
	Method of Delivery: vaginal/cesarean	Breech and other presentation	Fetal presentation	Final route and method of delivery		
Total of reporting areas <sup>2</sup>	0.2	2.0	2.4	0.4	0.8	1.1
Alabama	0.5	0.2	---	---	0.1	---
Alaska	7.2	17.3	---	---	22.5	---
Arizona	0.5	0.0	---	---	0.0	---
Arkansas	0.7	0.2	---	---	0.0	---
California	0.0	5.5	5.5	0.0	0.0	0.1
Colorado	0.0	0.0	0.0	0.0	0.0	0.0
Connecticut	0.4	0.1	---	---	1.7	---
Delaware	0.0	0.1	0.4	0.3	-	0.3
District of Columbia	0.1	0.1	3.9	3.9	3.7	7.5
Florida	0.1	0.8	1.0	0.2	0.3	0.5
Georgia	0.2	11.4	11.5	0.3	5.6	5.7
Hawaii	0.6	0.0	---	---	0.0	---
Idaho	0.1	0.1	0.1	0.1	0.1	0.1
Illinois	0.1	1.1	1.1	0.1	0.4	0.4
Indiana	0.0	1.2	1.2	0.1	0.0	0.0
Iowa	0.0	0.0	0.1	0.1	0.0	0.1
Kansas	0.0	0.0	0.1	0.0	-	0.0
Kentucky	0.1	0.2	0.7	0.6	0.2	0.7
Louisiana	0.0	0.0	0.8	0.8	0.0	0.8
Maine	0.4	0.2	---	---	0.6	---
Maryland	0.2	1.6	2.7	1.3	0.2	1.4
Massachusetts	1.7	12.7	---	---	1.8	---
Michigan	0.0	0.7	0.7	0.0	2.0	2.1
Minnesota	0.3	1.5	---	---	2.1	---
Mississippi	0.5	0.0	---	---	0.0	---
Missouri	0.6	3.6	3.8	0.9	0.0	0.3
Montana	0.1	0.1	0.1	0.1	0.4	0.4
Nebraska	0.0	0.0	0.1	0.0	0.3	0.3
Nevada	0.0	0.0	0.2	0.2	0.0	0.2
New Hampshire	0.1	0.8	2.6	1.8	5.7	7.4
New Jersey	1.1	0.2	---	---	0.6	---
New Mexico	0.0	0.4	0.8	0.4	-	0.4
New York (excluding NYC)	0.6	0.5	2.3	2.3	2.1	3.8
New York City	0.3	0.3	0.8	0.7	3.4	3.8
North Carolina	0.0	0.1	0.5	0.5	0.0	0.5
North Dakota	0.0	0.3	0.6	0.3	0.1	0.4
Ohio	0.5	0.9	2.0	1.6	3.7	4.9
Oklahoma <sup>20</sup>	0.0	0.0	1.6	1.6	0.0	1.6
Oregon	0.0	0.1	0.2	0.0	0.0	0.0
Pennsylvania	0.1	0.1	0.9	0.9	0.0	0.9
Rhode Island	0.3	2.8	---	---	3.9	---
South Carolina	0.0	0.0	0.0	0.1	0.1	0.1
South Dakota	0.0	0.1	0.2	0.2	0.0	0.2
Tennessee	0.0	0.0	0.5	0.4	0.0	0.4
Texas	0.0	2.7	2.7	0.0	0.0	0.0
Utah	0.0	0.0	0.1	0.1	0.0	0.1
Vermont	0.0	0.3	0.4	0.2	0.6	0.7
Virginia	0.6	0.0	---	---	0.0	---
Washington	0.0	0.5	0.5	0.0	0.7	0.7
West Virginia	0.6	0.2	---	---	0.8	---
Wisconsin	0.1	0.5	0.9	0.5	0.6	0.9
Wyoming	0.0	-	0.0	0.0	0.0	0.0
Puerto Rico	0.0	0.0	0.0	0.0	0.0	0.0
Virgin Islands	2.5	13.7	---	---	17.3	---
Guam	1.4	43.5	---	---	2.1	---
American Samoa	---	---	---	---	---	---
Northern Marianas	---	---	---	---	---	---

See footnotes at end of table.

Table B. Percent of birth records on which specified items were not stated: United States and each state and territory, New York City and the District of Columbia, 2011 -- Con.  
[By place of residence]

Reporting areas	Items exclusive to the revised reporting area, 36 states and the District of Columbia <sup>5</sup>							
	Time of birth	Education of mother	Education of father	Mother's height	Mother's pre-pregnancy weight	Did mother get WIC food for herself during this pregnancy	Cigarette smoking before and during pregnancy	
Total of reporting areas <sup>2</sup>	0.4	1.5	16.0	2.2	3.8	2.2	1.6	
Alabama	---	---	---	---	---	---	---	
Alaska	---	---	---	---	---	---	---	
Arizona	---	---	---	---	---	---	---	
Arkansas	---	---	---	---	---	---	---	
California	0.1	3.5	11.6	2.2	4.9	1.0	1.0	
Colorado	0.0	1.2	10.0	1.1	2.1	3.0	0.2	
Connecticut	---	---	---	---	---	---	---	
Delaware	0.3	0.9	38.5	1.0	1.1	1.9	0.4	
District of Columbia	3.8	5.1	30.3	11.5	7.9	6.1	7.6	
Florida	0.1	0.6	17.4	1.4	4.9	0.7	0.3	
Georgia	0.1	4.4	23.3	17.9	17.6	8.2	16.6	
Hawaii	---	---	---	---	---	---	---	
Idaho	0.0	0.6	11.7	0.2	0.2	1.0	0.2	
Illinois	0.3	1.1	15.9	1.1	2.5	3.3	0.5	
Indiana	0.0	0.4	15.0	0.2	0.9	0.6	0.2	
Iowa	0.1	0.2	14.3	0.2	0.4	0.8	0.2	
Kansas	0.0	0.5	11.8	0.3	2.5	0.2	0.4	
Kentucky	0.5	1.0	21.4	1.1	1.3	1.0	0.7	
Louisiana	0.8	1.0	18.1	1.5	4.0	6.2	2.0	
Maine	---	---	---	---	---	---	---	
Maryland	1.2	1.7	18.9	3.3	3.0	2.4	1.7	
Massachusetts	---	---	---	---	---	---	---	
Michigan	0.0	0.6	16.9	1.4	4.0	2.9	---	
Minnesota	---	---	---	---	---	---	---	
Mississippi	---	---	---	---	---	---	---	
Missouri	1.2	0.6	17.8	1.1	1.6	2.1	1.1	
Montana	0.0	0.6	10.6	1.7	1.2	5.7	0.5	
Nebraska	0.0	0.1	13.2	0.2	0.8	0.3	0.1	
Nevada	0.2	1.4	18.2	0.8	1.2	1.4	1.9	
New Hampshire	1.8	2.4	11.2	3.6	7.1	3.9	3.8	
New Jersey	---	---	---	---	---	---	---	
New Mexico	0.4	2.0	19.3	0.9	6.7	6.1	1.1	
New York (excluding NYC)	1.7	2.5	13.9	3.5	5.3	4.4	1.8	
New York City	0.5	0.8	13.5	1.0	1.0	1.1	0.5	
North Carolina	0.5	0.6	19.2	1.2	2.3	0.7	0.7	
North Dakota	0.3	1.2	10.7	1.0	1.1	4.0	0.4	
Ohio	1.2	1.8	19.5	2.2	4.6	2.1	1.7	
Oklahoma	1.6	1.9	17.9	1.9	2.6	2.2	2.3	
Oregon	0.0	0.5	10.8	0.7	1.5	2.2	0.9	
Pennsylvania	0.9	1.5	9.7	1.9	8.2	2.3	2.8	
Rhode Island	---	---	---	---	---	---	---	
South Carolina	0.0	0.3	26.6	1.4	1.1	1.8	2.5	
South Dakota	0.2	0.5	14.1	0.6	1.3	1.1	0.7	
Tennessee	0.5	0.8	17.9	1.9	2.5	0.5	0.8	
Texas	0.0	0.1	14.5	0.2	0.6	0.1	0.1	
Utah	0.1	2.5	9.5	1.5	1.6	7.0	0.3	
Vermont	0.1	0.7	10.3	0.6	1.6	1.1	0.8	
Virginia	---	---	---	---	---	---	---	
Washington	0.0	0.9	14.6	2.9	4.9	8.6	0.5	
West Virginia	---	---	---	---	---	---	---	
Wisconsin	0.4	0.7	37.1	0.9	1.2	2.5	1.1	
Wyoming	0.0	0.7	18.3	0.8	1.1	0.4	1.6	
Puerto Rico	0.4	0.3	5.4	0.4	0.4	0.1	-	
Virgin Islands	---	---	---	---	---	---	---	
Guam	---	---	---	---	---	---	---	
American Samoa	---	---	---	---	---	---	---	
Northern Marianas <sup>3</sup>	0.1	3.7	12.8	80.7	80.7	---	83.6	

See footnotes at end of table.



**Table B. Percent of birth records on which specified items were not stated: United States and each state and territory, New York City and the District of Columbia, 2011 -- Con.**  
**[By place of residence]**

Reporting areas	Items exclusive to the revised reporting area, 36 states and the District of Columbia <sup>5</sup>							
	Source of payment <sup>21</sup>	Birth interval	Month prenatal care began	Infections present	Maternal morbidity	Abnormal conditions	Infant breastfed	
Total of reporting areas <sup>2</sup>	1.9	5.1	3.8	0.9	0.8	0.8	3.2	
Alabama	---	---	---	---	---	---	---	
Alaska	---	---	---	---	---	---	---	
Arizona	---	---	---	---	---	---	---	
Arkansas	---	---	---	---	---	---	---	
California	0.2	0.6	2.4	0.1	0.1	0.1	---	
Colorado	0.3	5.4	1.7	0.0	0.0	0.0	0.0	
Connecticut	---	---	---	---	---	---	---	
Delaware <sup>10</sup>	0.5	5.6	2.7	0.3	---	---	---	
District of Columbia	7.5	23.9	26.8	5.9	12.9	6.8	36.0	
Florida	0.4	2.2	4.5	1.3	0.6	0.3	1.0	
Georgia	8.3	9.1	17.1	5.8	4.8	4.8	20.9	
Hawaii	---	---	---	---	---	---	---	
Idaho	0.2	1.0	0.5	0.3	0.1	0.1	0.4	
Illinois	1.2	5.0	2.3	0.6	0.5	0.4	0.6	
Indiana	0.3	2.1	0.5	0.0	0.0	0.0	0.1	
Iowa	0.2	0.7	0.5	0.1	0.1	0.1	5.1	
Kansas	0.5	1.6	3.3	0.0	0.0	0.0	0.4	
Kentucky	1.0	2.2	4.2	0.7	0.6	0.6	1.0	
Louisiana	0.8	6.6	3.3	0.8	0.8	0.8	7.4	
Maine	---	---	---	---	---	---	---	
Maryland	3.6	16.2	8.9	1.3	1.5	1.3	5.5	
Massachusetts	---	---	---	---	---	---	---	
Michigan	0.2	2.4	2.8	1.8	1.5	1.8	1.5	
Minnesota	---	---	---	---	---	---	---	
Mississippi	---	---	---	---	---	---	---	
Missouri	3.6	8.3	5.3	0.3	0.3	0.3	6.1	
Montana	1.6	3.0	1.2	0.4	0.2	0.3	3.3	
Nebraska	1.5	5.6	1.3	0.6	0.4	0.3	0.2	
Nevada	20.3	3.9	9.0	0.2	0.2	0.2	5.9	
New Hampshire	3.7	3.7	3.4	2.7	3.9	6.9	2.9	
New Jersey	---	---	---	---	---	---	---	
New Mexico	26.0	7.3	5.8	3.8	0.4	0.4	5.0	
New York (excluding NYC)	2.1	13.0	4.5	2.7	2.7	3.1	3.4	
New York City	1.0	9.9	1.3	0.8	1.0	0.9	0.8	
North Carolina	0.6	2.5	1.5	0.8	0.5	0.5	0.5	
North Dakota	2.6	4.4	2.1	0.4	0.4	0.4	7.2	
Ohio	2.8	7.7	5.9	1.2	2.4	3.0	4.8	
Oklahoma	2.2	5.5	5.2	1.6	1.6	1.6	4.4	
Oregon	0.6	2.8	1.1	0.0	0.0	0.0	6.0	
Pennsylvania	3.1	12.2	4.5	0.9	0.9	0.9	2.0	
Rhode Island	---	---	---	---	---	---	---	
South Carolina	0.5	5.6	0.7	0.1	0.1	0.1	0.5	
South Dakota	0.4	4.0	1.9	0.2	0.2	0.2	0.6	
Tennessee	5.9	9.3	7.2	0.4	0.4	0.4	4.8	
Texas	0.2	3.4	1.0	0.0	0.0	0.0	0.2	
Utah	4.6	0.9	0.8	0.1	0.1	0.1	0.1	
Vermont	0.3	3.3	0.9	1.0	0.4	0.6	0.7	
Virginia	---	---	---	---	---	---	---	
Washington	1.4	6.5	0.7	0.4	0.5	0.6	1.5	
West Virginia	---	---	---	---	---	---	---	
Wisconsin	2.1	3.8	4.1	0.7	0.6	0.6	6.7	
Wyoming	0.4	5.7	0.5	0.1	0.0	0.0	0.6	
Puerto Rico	0.4	2.1	0.7	0.0	0.6	-	0.2	
Virgin Islands	---	---	---	---	---	---	---	
Guam	---	---	---	---	---	---	---	
American Samoa	---	---	---	---	---	---	---	
Northern Marianas <sup>3</sup>	83.5	82.3	86.0	---	---	---	87.5	

0.0 Quantity more than zero but less than 0.05.

---Data not available.

- Quantity zero.

<sup>1</sup> Items common to both the 2003 and 1989 Standard Certificates of Live Birth.

<sup>2</sup> Excludes data for Puerto Rico, Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Marianas.

<sup>3</sup> Several items for the Northern Marianas have high percents "not stated"; these data should be used with caution (see "Technical notes").

<sup>4</sup> Items included: diabetes (combined prepregnancy and gestational), prepregnancy hypertension, gestational hypertension, and eclampsia. Eclampsia not reported by Idaho, Kentucky, Michigan, Nebraska, New York City, Pennsylvania, South Carolina, Tennessee, and Washington.

<sup>5</sup> Items exclusive to the 2003 Standard Certificate of Live Birth.

<sup>6</sup> Items included: Prepregnancy and gestational diabetes, previous preterm birth, other previous poor pregnancy outcome, pregnancy resulted from infertility treatment, mother had a previous cesarean. The type of infertility treatment was not reported by Idaho, Kentucky, Michigan, Nebraska, New Hampshire, Pennsylvania, South Carolina, Tennessee, and Washington.

<sup>7</sup> Item included: Tocolysis.

<sup>8</sup> Items included: Cervical cerclage and failed and successful external cephalic version (ECV).

<sup>9</sup> Reliable data on tocolysis not available for Arkansas for 2011 (see "Technical notes").

<sup>10</sup> Reliable data not available for several items for Delaware for 2011 (see "Technical notes").

<sup>11</sup> Reliable data on successful and failed ECV not available for Georgia, Illinois, Louisiana, Maryland, and Ohio for 2011 (see "Technical notes").

<sup>12</sup> Item included: Precipitous labor.

<sup>13</sup> Items included: Premature rupture of membranes (PROM), prolonged labor.

<sup>14</sup> Induction of labor included in the "Obstetric Procedures" item for the 1989 Standard Certificate of Live Birth; meconium included in the "Complications of Labor and/or Delivery" item.

<sup>15</sup> Items included: Augmentation of labor, steroids for fetal lung maturation, antibiotics received by the mother during labor, clinical chorioamnionitis, fetal intolerance of labor, epidural or spinal anesthesia during labor.

<sup>16</sup> Breech/malpresentation included in the "Complications of Labor and/or Delivery" item for the 1989 Standard Certificate of Live Birth.

<sup>17</sup> Items included: Fetal presentation at birth: cephalic; Final route and method of delivery: Vaginal/spontaneous, vaginal/forceps, vaginal/vacuum, and if cesarean, was a trial of labor attempted.

<sup>18</sup> Items included: Anencephaly, spina bifida, congenital diaphragmatic hernia, omphalocele/gastroschisis, cleft lip/palate, and down syndrome.

<sup>19</sup> Items included: Cyanotic congenital heart disease, limb reduction defect, suspected chromosomal disorder, hypospadias.

<sup>20</sup> Reliable data on congenital diaphragmatic hernia not available for Oklahoma for 2011 (see "Technical notes").

<sup>21</sup> Expanded source of payment categories reported by 27 states; see "Technical notes".



Wyoming	X	X	X	X	X	X^			
Puerto Rico	X	X	X	X	X	X	X^		
Virgin Islands									
Guam	X*								
American Samoa									
Northern Marianas	X	X^							

^ First year using 2003 U.S. Standard Certificate of Live Birth; revised as of January 1.

\* Revised after January 1.

1 Excludes reporting areas that revised after January 1.

2 Excludes New York City

**Table D. Live births by selected demographic and health characteristics: United States and total of 36 revised states and the District of Columbia, 2011**

Characteristic of mother	Revised 1		United States	
	N	Percent	N	Percent
Race/Hispanic origin of mother				
All races and origins 2	3,267,934	100.00	3,953,590	100.00
Non-Hispanic	2,441,424	75.26	3,008,200	76.62 **
White 3	1,747,609	53.87	2,146,566	54.67 **
Black 3	476,315	14.68	582,345	14.83 **
American Indian or Alaska Native 3,4	27,861	0.86	39,187	1.00 **
Asian or Pacific Islander 3	189,639	5.85	240,102	6.12 **
Hispanic 5	802,401	24.74	918,129	23.38 **
Mexican	514,405	15.86	566,699	14.43 **
Puerto Rican	48,222	1.49	67,018	1.71 **
Cuban	15,828	0.49	17,131	0.44 **
Central or South American	104,233	3.21	136,221	3.47 **
Other and Unknown Hispanic	119,713	3.69	131,060	3.34 **
Age of Mother				
<20 years	280,826	8.59	333,746	8.44 **
20-24 years	771,743	23.62	925,200	23.40 **
25-29 years	934,830	28.61	1,127,583	28.52 **
30-34 years	807,018	24.70	986,682	24.96 **
35-39 years	378,458	11.58	463,849	11.73 **
40-54 years	95,059	2.91	116,530	2.95 **
Unmarried Women	1,338,553	40.96	1,607,773	40.67 **
Characteristic of Infant/Delivery				
Very preterm 6	62,648	1.92	76,199	1.93
Preterm 7	381,716	11.69	463,163	11.73
Very low birthweight 8	46,626	1.43	56,754	1.44
Low birthweight 9	263,773	8.08	319,711	8.10
4,000 grams or more 10	241,704	7.71	306,872	7.77 **
Multiple births 11,12	111,195	34.03	136,686	34.57 **

\*\* Difference significant at p = 0.05.

1 California, Colorado, Delaware, District of Columbia, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Washington, Wisconsin, and Wyoming.

2 Includes Hispanic origin not stated.

3 Race and Hispanic origin are reported separately on birth certificates. Race categories are consistent with the 1977 Office of Management and Budget (OMB) standards. All states in the 36-state and District of Columbia reporting area reported multiple-race data for 2011. The multiple-race data for these were bridged to the single-race categories of the 1977 OMB standards for comparability with other states; see "Technical Notes."

4 Includes births to Aleuts and Eskimos.

5 Includes persons of Hispanic origin of any race.

- 6 Born prior to 32 completed weeks of gestation.
- 7 Born prior to 37 completed weeks of gestation.
- 8 Birthweight of less than 1,500 grams (3 lb 4 oz)
- 9 Birthweight of less than 2,500 grams (5 lb 8 oz).
- 10 Equivalent to 8 lb 14 oz.
- 11 Includes births in twin, triplet, and higher order multiple deliveries.
- 12 The number of live births in multiple deliveries per 1,000 live births.

**Table E. Sources for the resident population and population including Armed Forces abroad: Birth and death-registration states, 1900-1932, and United States, 1900-2011**

[2011] National Center for Health Statistics. Postcensal estimates of the resident population of the United States for July 1, 2010–July 1, 2011, by year, county, single-year of age (0, 1, 2, ..., 85 years and over), bridged race, Hispanic origin, and sex (Vintage 2011). Prepared under a collaborative arrangement with the U.S. Census Bureau. Available from: [http://www.cdc.gov/nchs/nvss/bridged\\_race.htm](http://www.cdc.gov/nchs/nvss/bridged_race.htm) as of July 18, 2012, following release by the U.S. Census Bureau of the unbridged Vintage 2011 postcensal estimates by 5-year age group on May 17, 2012.

[2010] National Center for Health Statistics. Estimates of the April 1, 2010 resident population of the United States, by county, single-year of age (0, 1, 2, ..., 85 years and over), bridged race, Hispanic origin, and sex. Prepared under a collaborative arrangement with the U.S. Census Bureau. Available from: [http://www.cdc.gov/nchs/nvss/bridged\\_race.htm](http://www.cdc.gov/nchs/nvss/bridged_race.htm) as of November 17, 2011, following release by the U.S. Census Bureau of the unbridged April 1, 2010 census counts on November 3, 2011.

[2010] U.S. Census Bureau. Unpublished tables. Intercensal estimates of the resident population by single year of age and sex for the United States: April 1, 2000 December 1, 2010 (Vintage 2011 Population Estimates). Population Division. 2012.

[2001-2009] National Center for Health Statistics. Intercensal estimates of the resident population of the United States for July 1, 2000-July 1, 2009, by year, county, single-year of age (0, 1, 2, ..., 85 years and over), bridged race, Hispanic origin, and sex. Prepared under a collaborative arrangement with the U.S. Census Bureau. Available from: [http://www.cdc.gov/nchs/nvss/bridged\\_race.htm](http://www.cdc.gov/nchs/nvss/bridged_race.htm) as of October 26, 2012, following release by the U.S. Census Bureau of the revised unbridged intercensal estimates by 5-year age group on October 9, 2012.

[2001-2009] U.S. Census Bureau. Unpublished tables. Intercensal estimates of the resident population by single year of age and sex for the United States: April 1, 2000 to April 1, 2010. Population Division. 2011.

[2000] National Center for Health Statistics. Estimates of the April 1, 2000, United States resident population by age, sex, race, and Hispanic origin, prepared under a collaborative arrangement with the U.S. Census Bureau. Available on the Internet at: [http://www.cdc.gov/nchs/nvss/bridged\\_race/data\\_documentation.htm#april2000](http://www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#april2000). 2003.

[1999] National Center for Health Statistics. Intercensal estimates of the July 1, 1999, United States resident population by state and county, age, sex, bridged race, and Hispanic origin, prepared under a collaborative arrangement with the U.S. Census Bureau. File icen1999.txt. Internet released, April 15, 2003. Available at: [http://www.cdc.gov/nchs/nvss/bridged\\_race.htm](http://www.cdc.gov/nchs/nvss/bridged_race.htm).

[1998] National Center for Health Statistics. Intercensal estimates of the July 1, 1998, United States resident population by state and county, age, sex, bridged race, and Hispanic origin, prepared under a collaborative arrangement with the U.S. Census Bureau. File icen1998.txt. Internet released, April 15, 2003.

Available at: [http://www.cdc.gov/nchs/nvss/bridged\\_race.htm](http://www.cdc.gov/nchs/nvss/bridged_race.htm).

[1997] National Center for Health Statistics. Intercensal estimates of the July 1, 1997, United States resident population by state and county, age, sex, bridged race, and Hispanic origin, prepared under a collaborative arrangement with the U.S. Census Bureau. File icen1997.txt. Internet released, April 15, 2003.

Available at: [http://www.cdc.gov/nchs/nvss/bridged\\_race.htm](http://www.cdc.gov/nchs/nvss/bridged_race.htm).

[1996] National Center for Health Statistics. Intercensal estimates of the July 1, 1996, United States resident population by state and county, age, sex, bridged race, and Hispanic origin, prepared under a collaborative arrangement with the U.S. Census Bureau. File icen1996.txt. Internet released, April 15, 2003.

Available at: [http://www.cdc.gov/nchs/nvss/bridged\\_race.htm](http://www.cdc.gov/nchs/nvss/bridged_race.htm).

[1995] National Center for Health Statistics. Intercensal estimates of the July 1, 1995, United States resident population by state and county, age, sex, bridged race, and Hispanic origin, prepared under a collaborative arrangement with the U.S. Census Bureau. File icen1995.txt. Internet released, April 15, 2003.

Available at: [http://www.cdc.gov/nchs/nvss/bridged\\_race.htm](http://www.cdc.gov/nchs/nvss/bridged_race.htm).

[1994] National Center for Health Statistics. Intercensal estimates of the July 1, 1994, United States resident population by state and county, age, sex, bridged race, and Hispanic origin, prepared under a collaborative arrangement with the U.S. Census Bureau. File icen1994.txt. Internet released, April 15, 2003.

Available at: [http://www.cdc.gov/nchs/nvss/bridged\\_race.htm](http://www.cdc.gov/nchs/nvss/bridged_race.htm).

[1993] National Center for Health Statistics. Intercensal estimates of the July 1, 1993, United States resident population state and county, by age, sex, bridged race, and Hispanic origin, prepared under a collaborative arrangement with the U.S. Census Bureau. File icen1993.txt. Internet released, April 15, 2003.

Available at: [http://www.cdc.gov/nchs/nvss/bridged\\_race.htm](http://www.cdc.gov/nchs/nvss/bridged_race.htm).

[1992] National Center for Health Statistics. Intercensal estimates of the July 1, 1992, United States resident population by state and county, age, sex, bridged race, and Hispanic origin, prepared under a collaborative arrangement with the U.S. Census Bureau. File icen1992.txt. Internet released, April 15, 2003.

Available at: [http://www.cdc.gov/nchs/nvss/bridged\\_race.htm](http://www.cdc.gov/nchs/nvss/bridged_race.htm).

[1991] National Center for Health Statistics. Intercensal estimates of the July 1, 1991, United States resident population by state and county, age, sex, bridged race, and Hispanic origin, prepared under a collaborative arrangement with the U.S. Census Bureau. File icen1991.txt. Internet released, April 15, 2003.

Available at: [http://www.cdc.gov/nchs/nvss/bridged\\_race.htm](http://www.cdc.gov/nchs/nvss/bridged_race.htm).



<b>Table F. Percentage net population under/over count, by age, sex, and race/Hispanic origin: United States, April 1, 2010</b>	
Characteristic	Estimate (%)
Total	-0.01
Age/sex	
10–17 Male and female	-0.97
18–29 Male	1.21
18–29 Female	-0.28
30–49 Male	3.57
30–49 Female	-0.42
50 years and over male	-0.32
50 years and over female	-2.35
Race/Hispanic origin	
Non-Hispanic white	-0.84
Non-Hispanic black	2.07
Hispanic	1.54

SOURCE: Mule T. Census Coverage Measurement Estimation Report: Summary of Estimates of Coverage for Persons in the United States. DSSD 2010 Census Coverage Measurement Memorandum Series #2010-G-01. Washington: U.S. Census Bureau. May 22, 2012. Available from [https://www.census.gov/coverage\\_measurement/pdfs/g01.pdf](https://www.census.gov/coverage_measurement/pdfs/g01.pdf).

Table 1. Estimated total population, by race and Hispanic origin and specified Hispanic origin group and estimated female population, by age and race and Hispanic origin and specified Hispanic origin group of woman, and standard errors by age and specified Hispanic origin group: United States, 2011

[Populations estimated as of July 1]

Race and Hispanic origin	Total population	Female population											
		15-44 years	10-14 years	15-19 years			20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	
				Total	15-17 years	18-19 years							
All races and origins	311,591,917	62,517,048	10,117,822	10,525,097	6,198,804	4,326,293	10,841,132	10,518,279	10,228,056	9,832,998	10,571,486	11,205,304	
White	Total <sup>1</sup>	247,094,331	47,648,155	7,701,080	7,975,711	4,710,533	3,265,178	8,198,494	8,016,206	7,761,947	7,478,229	8,217,568	8,862,663
	Non-Hispanic <sup>2</sup>	200,423,243	36,888,687	5,687,568	6,006,598	3,534,198	2,472,400	6,339,561	6,197,345	5,956,676	5,749,992	6,638,515	7,463,157
Black	Total <sup>1</sup>	42,678,815	9,655,682	1,674,758	1,798,629	1,045,677	752,952	1,799,160	1,584,589	1,538,398	1,440,501	1,494,405	1,549,967
	Non-Hispanic <sup>2</sup>	39,944,896	8,990,857	1,546,356	1,674,525	972,090	702,435	1,671,217	1,465,672	1,424,682	1,344,610	1,410,151	1,475,059
American Indian or Alaska Native	Total <sup>1</sup>	4,347,413	972,763	184,569	188,432	110,655	77,777	179,740	165,473	155,944	142,669	140,505	141,910
Asian or Pacific Islander	Total <sup>1</sup>	17,471,358	4,240,448	557,415	562,325	331,939	230,386	663,738	752,011	771,767	771,599	719,008	650,764
Hispanic <sup>3</sup>	Total	52,045,277	12,046,376	2,264,121	2,212,656	1,321,063	891,593	2,101,640	2,046,563	2,023,293	1,916,474	1,745,750	1,546,188
	Mexican	33,557,925	7,762,975	1,588,145	1,497,425	892,615	604,810	1,364,945	1,297,280	1,289,985	1,233,875	1,079,465	894,470
		(46,487)	(21,621)	(12,422)	(7,216)	(5,368)	(4,821)	(9,295)	(7,064)	(8,251)	(10,518)	(10,020)	(5,981)
	Puerto Rican	4,885,295	1,125,230	227,700	216,655	123,945	92,710	199,230	183,850	186,815	172,765	165,915	162,365
		(22,349)	(10,762)	(4,796)	(4,373)	(3,046)	(3,139)	(4,708)	(4,373)	(3,870)	(4,112)	(4,850)	(3,455)
	Cuban	1,891,015	371,630	53,075	60,360	35,670	24,690	70,160	58,310	51,910	61,285	69,605	76,860
		(15,948)	(7,419)	(2,633)	(2,982)	(2,404)	(1,765)	(2,852)	(3,559)	(2,736)	(2,722)	(3,235)	(2,770)
	Other Hispanic <sup>4</sup>	11,605,685	2,775,430	405,145	446,670	260,480	186,190	466,450	483,410	480,595	450,970	447,335	414,205
		(39,297)	(19,098)	(7,291)	(6,969)	(5,487)	(4,297)	(7,662)	(8,261)	(8,378)	(7,982)	(7,436)	(6,942)

1 Persons of Hispanic origin are included for this race group.

2 Persons of Hispanic origin may be of any race.

3 Includes all persons of Hispanic origin of any race.

4 Includes Central and South American and other and unknown Hispanic.

NOTES: Population count estimates are based on the 2010 census; see "Technical Notes." Race categories are consistent with the 1977 Office of Management and Budget (OMB) standards. Multiple-race population estimates were bridged to the single race categories of the 1977 OMB standards for comparability with the birth data; see "Technical Notes." Population estimates for Mexican, Puerto Rican, Cuban, Central and Other Hispanic, which includes includes Central and South American and other and unknown Hispanic, are based on the American Community Survey adjusted to resident population control totals (the 2010-based population estimates for the United States for July 1, 2011). Population estimates for Hispanic total are based on the 2010 census, as of April 1, 2011. Population estimates by specified Hispanic origin in this table do not add to population estimates for total Hispanic. Standard errors are shown in parentheses below each population estimate.

SOURCE: U.S. Census Bureau. See references 59 and 65 and unpublished estimates from NCHS.

Table 2. Estimated total population, female population aged 15-44 years, and age-specific female population: United States, each state, and territory: July 1, 2011

Geographic Area	Total population	Female population										
		15-44 years	10-14 years	15-19 years			20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years
				Total	15-17 years	18-19 years						
United States	311,591,917	62,517,048	10,117,822	10,525,097	6,198,804	4,326,293	10,841,132	10,518,279	10,228,056	9,832,998	10,571,486	11,205,304
Alabama	4,802,740	960,184	157,363	163,082	95,875	67,207	174,254	157,023	154,895	151,554	159,376	172,290
Alaska	722,718	145,873	24,848	24,340	15,149	9,191	25,852	27,263	24,059	21,614	22,745	25,358
Arizona	6,482,505	1,271,186	221,996	218,214	131,335	86,879	222,818	214,612	209,135	200,948	205,459	209,852
Arkansas	2,937,979	570,789	97,539	95,607	56,906	38,701	102,312	95,982	94,226	89,982	92,680	101,021
California	37,691,912	7,916,936	1,256,359	1,333,782	798,514	535,268	1,375,323	1,341,880	1,296,888	1,254,773	1,314,290	1,323,873
Colorado	5,116,796	1,038,317	165,557	163,799	96,308	67,491	171,810	182,829	178,398	167,595	173,886	179,791
Connecticut	3,580,709	686,640	115,975	123,249	72,814	50,435	109,969	107,509	105,870	107,960	132,083	146,161
Delaware	907,135	178,901	27,985	30,666	17,364	13,362	32,377	29,137	28,379	27,153	31,189	34,136
District of Columbia	617,996	166,081	12,445	20,531	8,313	12,218	33,984	39,741	30,851	21,784	19,190	18,906
Florida	19,057,542	3,578,464	553,270	579,650	344,170	235,480	628,087	591,985	569,991	575,209	633,542	697,425
Georgia	9,815,210	2,076,093	340,822	340,408	201,768	138,640	347,112	338,963	344,767	344,368	360,475	364,956
Hawaii	1,374,810	263,598	39,805	40,014	24,703	15,311	45,299	47,748	44,708	41,502	44,327	46,190
Idaho	1,584,985	308,675	57,732	57,116	33,425	23,691	53,919	51,455	51,547	46,975	47,663	50,138
Illinois	12,869,257	2,622,664	427,622	442,118	265,545	176,573	435,365	449,849	440,554	415,656	439,122	461,541
Indiana	6,516,922	1,287,382	221,787	227,621	133,115	94,506	229,425	207,812	208,123	201,333	213,068	230,719
Iowa	3,062,309	578,260	98,221	105,233	59,558	45,675	105,516	95,780	93,914	84,975	92,842	103,804
Kansas	2,871,238	556,582	97,012	98,702	57,687	41,015	99,902	96,620	91,226	83,261	86,871	96,811
Kentucky	4,369,356	855,511	139,454	140,497	83,089	57,408	148,788	139,638	142,364	137,397	146,827	159,080
Louisiana	4,574,836	932,079	151,649	154,499	90,729	63,770	174,332	167,458	153,498	136,235	146,057	160,761
Maine	1,328,188	239,185	38,083	41,665	24,316	17,349	39,420	36,997	36,738	38,491	45,874	52,411
Maryland	5,828,289	1,192,668	185,596	193,890	115,073	78,817	196,324	202,245	195,354	188,810	216,045	234,925
Massachusetts	6,587,536	1,347,056	196,544	226,538	124,315	102,223	238,049	228,049	210,768	205,481	237,845	258,311
Michigan	9,876,187	1,904,783	326,037	347,674	204,172	143,502	344,948	291,922	293,412	293,192	333,635	362,716
Minnesota	5,344,861	1,044,201	172,426	179,377	105,329	74,048	172,457	184,947	175,431	157,272	174,717	195,068
Mississippi	2,978,512	603,540	102,098	106,822	62,218	44,604	109,144	99,580	98,099	93,002	96,893	103,454
Missouri	6,010,688	1,174,879	193,942	201,536	118,078	83,458	209,422	201,527	192,209	178,101	192,084	214,985
Montana	998,199	180,934	29,660	31,901	18,584	13,317	33,211	31,064	29,575	26,473	28,710	33,638
Nebraska	1,842,641	357,237	60,682	63,539	36,446	27,093	63,186	62,836	59,340	53,645	54,691	61,298
Nevada	2,723,322	549,361	89,287	85,229	53,796	31,433	89,876	95,822	94,310	90,654	93,470	92,682
New Hampshire	1,318,194	247,411	39,950	45,927	26,089	19,838	41,408	36,503	36,496	39,001	48,076	55,301
New Jersey	8,821,155	1,726,489	284,553	286,067	177,507	108,560	263,510	275,922	284,838	287,515	328,637	352,879
New Mexico	2,082,224	399,996	70,021	70,713	42,176	28,537	71,632	69,169	64,717	60,634	63,131	70,132
New York	19,465,197	4,032,314	585,292	646,710	376,774	269,936	708,276	707,766	663,888	618,340	687,334	733,628
North Carolina	9,656,401	1,958,279	314,228	317,555	183,980	133,575	333,614	317,867	320,476	323,367	345,400	351,608
North Dakota	683,932	131,653	19,413	22,969	12,190	10,779	28,376	23,634	20,433	17,625	18,616	21,878
Ohio	11,544,951	2,220,842	376,402	391,532	231,993	159,539	385,215	360,466	354,482	345,027	384,120	417,839
Oklahoma	3,791,508	742,805	125,259	125,975	73,508	52,467	135,815	130,533	122,264	113,095	115,123	125,718
Oregon	3,871,859	759,672	118,798	121,463	71,457	50,006	129,273	130,834	131,510	121,404	125,188	127,655
Pennsylvania	12,742,886	2,433,256	383,621	433,523	244,461	189,062	436,295	395,094	375,389	366,424	426,531	470,668
Rhode Island	1,051,302	212,646	30,529	38,947	19,865	19,082	41,556	32,816	31,780	30,730	36,817	40,526
South Carolina	4,679,230	928,427	147,146	154,210	87,765	66,445	169,450	153,471	149,321	145,219	156,756	168,078
South Dakota	824,082	153,643	26,166	28,102	16,094	12,008	28,157	26,753	25,310	22,124	23,197	27,018
Tennessee	6,403,353	1,277,212	205,745	208,025	123,901	84,124	220,971	211,707	210,250	205,831	220,428	233,868
Texas	25,674,681	5,406,935	937,596	911,763	548,706	363,057	913,389	924,159	904,687	879,380	873,557	874,553
Utah	2,817,222	612,671	113,922	110,196	63,253	46,943	115,534	109,158	109,418	89,576	78,789	75,467
Vermont	626,431	117,349	17,966	22,344	11,618	10,726	21,233	17,649	17,749	17,282	21,092	24,315
Virginia	8,096,604	1,659,020	251,530	265,862	153,220	112,642	283,109	283,781	273,711	263,072	289,485	309,635
Washington	6,830,038	1,366,450	213,867	217,556	130,466	87,090	232,115	238,093	231,520	216,088	231,078	238,242
West Virginia	1,855,364	341,245	53,191	56,565	32,570	23,995	59,758	52,536	56,460	55,994	59,932	64,668
Wisconsin	5,711,767	1,093,583	183,368	194,015	112,204	81,811	189,860	182,681	176,529	164,053	186,445	210,889
Wyoming	568,158	107,091	17,463	17,779	10,375	7,404	19,779	19,414	18,199	15,822	16,098	18,438
Puerto Rico	3,706,690	766,067	127,996	135,888	81,011	54,877	132,752	121,283	127,799	123,091	125,254	131,791
Virgin Islands	105,784	20,654	3,382	3,490	2,109	1,381	2,926	3,201	2,993	3,822	4,222	4,383
Guam	159,600	34,341	7,114	6,849	4,165	2,684	6,297	5,490	5,098	5,272	5,335	5,283
American Samoa	55,198	13,184	2,350	3,463	2,080	1,383	2,413	1,837	1,657	1,764	2,050	2,062
Northern Marianas	52,167	13,968	1,729	1,905	1,069	836	2,031	3,150	3,045	1,883	1,954	2,010

SOURCE: U.S. Census Bureau. See reference 59, 60, and 61.

**Table 3. Population of birth- and death-registration states, 1900–1932, and United States, 1900-2011**

[Population enumerated as of April 1 for 1940, 1950, 1960, 1970, 1980, 1990, 2000, and 2010 and estimated as of July 1 for all other years]

Year	United States 1/		Year	United States 1/		Birth-registration States		Death-registration States	
	Population including Armed Forces abroad	Population residing in area		Population including Armed Forces abroad	Population residing in area	Number of States 2/	Population residing in area	Number of States 2/	Population residing in area
2011	312,008,762	311,591,917	1954	162,391,000	161,164,000				
2010	309,178,489	308,745,538	1953	159,565,000	158,242,000				
2009	307,204,385	306,771,529	1952	156,954,000	155,687,000				
2008	304,516,881	304,093,966	1951	154,287,000	153,310,000				
2007	301,655,229	301,231,207	1950	151,132,000	150,697,361	..	...	...	...
2006	298,782,525	298,379,912	1949	149,188,000	148,665,000	..	...	...	...
2005	295,854,681	295,516,599	1948	146,631,000	146,093,000	..	...	...	...
2004	293,056,411	292,805,298	1947	144,126,000	143,446,000	..	...	...	...
2003	290,325,300	290,107,933	1946	141,389,000	140,054,000	..	...	...	...
2002	287,856,691	287,625,193	1945	139,928,000	132,481,000	..	...	...	...
2001	285,196,068	284,968,955	1944	138,397,000	132,885,000	..	...	...	...
2000	281,652,000	281,421,906	1943	136,739,000	134,245,000	..	...	...	...
1999	279,294,713	279,040,168	1942	134,860,000	133,920,000	..	...	...	...
1998	276,115,288	275,854,104	1941	133,402,000	133,121,000	..	...	...	...
1997	272,911,760	272,646,925	1940	131,820,000	131,669,275	..	...	...	...
1996	269,667,391	269,394,284	1939	131,028,000	130,879,718	..	...	...	...
1995	266,557,091	266,278,393	1938	129,969,000	129,824,939	..	...	...	...
1994	263,435,673	263,125,821	1937	128,961,000	128,824,829	..	...	...	...
1993	260,255,352	259,918,588	1936	128,181,000	128,053,180	..	...	...	...
1992	256,894,189	256,514,224	1935	127,362,000	127,250,232	..	...	...	...
1991	253,492,503	252,980,941	1934	126,485,000	126,373,773	..	...	...	...
1990	249,225,000	248,709,873	1933	125,690,000	125,578,763	..	...	...	...
1989	247,342,000	246,819,000	1932	124,949,000	124,840,471	47	118,903,899	47	118,903,899
1988	245,021,000	244,499,000	1931	124,149,000	124,039,648	46	117,455,229	47	118,148,987
1987	242,804,000	242,289,000	1930	123,188,000	123,076,741	46	116,544,946	47	117,238,278
1986	240,651,000	240,133,000	1929		121,769,939	46	115,317,450	46	115,317,450
1985	238,466,000	237,924,000	1928		120,501,115	44	113,636,160	44	113,636,160
1984	236,348,000	235,825,000	1927		119,038,062	40	104,320,830	42	107,084,532
1983	234,307,000	233,792,000	1926		117,399,225	35	90,400,590	41	103,822,683
1982	232,188,000	231,664,000	1925		115,831,963	33	88,294,564	40	102,031,555
1981	229,966,000	229,466,000	1924		114,113,463	33	87,000,295	39	99,318,098
1980	227,061,000	226,545,805	1923		111,949,945	30	81,072,123	38	96,788,197
1979	225,055,000	224,567,000	1922		110,054,778	30	79,560,746	37	92,702,901
1978	222,585,000	222,095,000	1921		108,541,489	27	70,807,090	34	87,814,447
1977	220,239,000	219,760,000	1920		106,466,420	23	63,597,307	34	86,079,263
1976	218,035,000	217,563,000	1919	105,063,000	104,512,110	22	61,212,076	33	83,157,982
1975	215,973,000	215,465,000	1918	104,550,000	103,202,801	20	55,153,782	30	79,008,412
1974	213,854,000	213,342,000	1917	103,414,000	103,265,913	20	55,197,952	27	70,234,775
1973	211,909,000	211,357,000	1916		101,965,984	11	32,944,013	26	66,971,177
1972	209,896,000	209,284,000	1915		100,549,013	10	31,096,697	24	61,894,847
1971	207,661,000	206,827,000	1914		99,117,567	..	...	24	60,963,309
1970	204,270,000	203,211,926	1913		97,226,814	..	...	23	58,156,740
1969	202,677,000	201,385,000	1912		95,331,300	..	...	22	54,847,700
1968	200,706,000	199,399,000	1911		93,867,814	..	...	22	53,929,644
1967	198,712,000	197,457,000	1910		92,406,536	..	...	20	47,470,437
1966	196,560,000	195,576,000	1909		90,491,525	..	...	18	44,223,513
1965	194,303,000	193,526,000	1908		88,708,976	..	...	17	38,634,759
1964	191,889,000	191,141,000	1907		87,000,271	..	...	15	34,552,837
1963	189,242,000	188,483,000	1906		85,436,556	..	...	15	33,782,288
1962	186,538,000	185,771,000	1905		83,819,666	..	...	10	21,767,980
1961	183,691,000	182,992,000	1904		82,164,974	..	...	10	21,332,076
1960	179,933,000	179,323,175	1903		80,632,152	..	...	10	20,943,222

1959	177,264,000	176,513,000	1902	79,160,196	..	10	20,582,907
1958	174,141,000	173,320,000	1901	77,585,128	..	10	20,237,453
1957	171,274,000	170,371,000	1900	76,094,134	..	10	19,965,446
1956	168,221,000	167,306,000					
1955	165,275,000	164,308,000					

--- Data not available.

... Category not applicable.

1/ Alaska included beginning 1959 and Hawaii, 1960.

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

SOURCE: Published and unpublished data from the U.S. Census Bureau; see reference 59.

U.S. Census Bureau provides monthly population estimates of resident population plus armed forces overseas, by single year of age, sex, race, and Hispanic origin for the United States: April 1, 2010 to July 1, 2011

(Vintage 2011). May 2012. Available from: <http://www.census.gov/popest/data/national/asrh/2011/2011-nat-af.html>.

Footnote: Revised population estimates of the resident population plus armed forces overseas from 2001 through 2009 were prepared by NCHS staff.

Data on race of mother presented in the following **Documentation Tables 1 through 19** are consistent with the 1997 OMB standards [31]. The number of births by race of mother differ somewhat from those shown in “Births: Final Data for 2011” [1], which are based on the 1977 OMB standards [30]. See previous section on “Hispanic origin and race”. Also, please note that data from reporting areas that revised after January 1, 2011 (Massachusetts, Minnesota, and Guam) are not included in **Documentation Tables 1 through 19**.

Documentation Table 1. Live births by race of mother: 39 states and the District of Columbia, 2011

Race	Number	Percentage
All races <sup>1</sup>	3,366,259	100.0
One race	3,214,334	97.8
White	2,483,632	75.6
Black	498,670	15.2
American Indian and Alaska Native (AIAN)	30,361	0.9
Asian	191,382	5.8
Native Hawaiian and Other Pacific Islander (NHOPI)	10,289	0.3
More than one race	70,772	2.2
Two races	63,009	1.9
Black and White	22,624	0.7
Black and AIAN	2,546	0.1
Black and Asian	1,906	0.1
Black and NHOPI	398	0.0
AIAN and White	15,164	0.5
AIAN and Asian	264	0.0
AIAN and NHOPI	85	0.0
Asian and White	15,144	0.5
Asian and NHOPI	2,307	0.1
NHOPI and White	2,571	0.1
Three races	7,375	0.2
Black, AIAN and White	2,507	0.1
Black AIAN and Asian	121	0.0
Black, AIAN and NHOPI	28	0.0
Black, Asian and White	509	0.0
Black, Asian and NHOPI	91	0.0
Black, NHOPI, and White	91	0.0
AIAN, Asian and White	511	0.0
AIAN, NHOPI and White	152	0.0
AIAN, Asian and NHOPI	55	0.0
Asian, NHOPI and White	3,310	0.1
Four races	372	0.0
Black, AIAN, Asian and White	82	0.0
Black, AIAN, Asian, and NHOPI	4	*
Black, AIAN, NHOPI and White	23	0.0
Black, Asian, NHOPI and White	45	0.0
AIAN, Asian, NHOPI and White	218	0.0
Five races		
Black, AIAN, Asian, NHOPI and White	16	*

0.0 Quantity more than zero but less than 0.5.

\* Figure does not meet standards of reliability or precision: based on fewer than 20 births in the numerator.

<sup>1</sup> Includes all births to residents of the states that reported multiple-race for the entire year. Percentages are based on the number of births occurring in the states that reported multiple-race for the entire year to residents of the states. Births that occurred in states that did not report multiple race to residents of the multiple-race reporting states are not shown separately but are included in the total.

NOTES: Race and Hispanic origin are reported separately on birth certificates. Race categories are consistent with the 1997 Office of Management and Budget standards. Forty states and the District of Columbia reported multiple race data for 2011. This table excludes data for Massachusetts, which reported multiple-race data in 2011 but after January 1. In this table all women, including Hispanic women, are classified only according to their race.

Documentation Table 2. Educational attainment of mother, by age and race and Hispanic origin of mother: Total of 36 reporting states and the District of Columbia, 2011

Educational attainment and race and Hispanic origin of mother	All ages	Under 20 years	20-24 years	25-29 years	30-34 years	35-39 years	40-54 years
All races 1							
	Percent						
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
12th grade or less with no diploma	18.5	52.8	22.0	14.3	11.4	12.6	13.7
8th grade or less	4.6	4.9	3.8	4.4	4.6	6.0	7.0
9th-12th grade with no diploma	13.9	48.0	18.1	9.9	6.7	6.6	6.7
High school graduate 2	25.3	35.9	38.9	23.7	16.2	15.1	15.7
Some college credit, but no degree	21.1	10.9	29.2	23.7	17.1	15.5	15.2
Associate's degree 3	7.5	0.3	5.2	9.8	8.9	8.5	8.4
Bachelor's degree 4	18.0	0.0	4.4	21.2	28.1	27.5	26.8
Master's degree 5	7.6	*	0.3	6.3	14.3	15.3	14.3
Doctorate or professional degree 6	2.1	*	0.0	1.1	4.0	5.5	5.9
	Number						
All births	3,267,934	280,826	771,743	934,830	807,018	378,458	95,059
Not stated 7	48,617	3,488	9,494	12,707	12,718	7,515	2,695
White 8							
	Percent						
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
12th grade or less with no diploma	9.5	46.0	15.6	6.3	3.4	3.3	3.9
8th grade or less	1.4	3.3	2.0	1.2	0.9	1.1	1.7
9th-12th grade with no diploma	8.0	42.7	13.5	5.1	2.6	2.1	2.2
High school graduate 2	22.3	40.7	39.0	20.6	12.7	11.6	12.4
Some college credit, but no degree	21.9	12.8	32.0	24.3	16.9	15.8	15.6
Associate's degree 3	9.2	0.4	6.8	11.8	10.1	9.6	9.4
Bachelor's degree 4	24.1	0.0	6.2	27.5	34.5	33.9	33.4
Master's degree 5	10.3	*	0.4	8.1	17.8	19.5	18.2
Doctorate or professional degree 6	2.7	*	0.0	1.4	4.6	6.4	7.2
	Number						
All births	1,713,700	103,883	364,566	522,869	468,204	203,438	50,740
Not stated 7	10,243	614	1,928	2,824	2,778	1,529	570
Black 8							
	Percent						
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
12th grade or less with no diploma	20.4	52.6	19.7	14.2	11.5	10.8	12.1
8th grade or less	1.8	3.4	1.1	1.5	1.6	2.3	3.3
9th-12th grade with no diploma	18.6	49.2	18.6	12.7	9.9	8.4	8.8
High school graduate 2	32.9	35.3	41.2	30.9	25.2	23.1	23.6
Some college credit, but no degree	26.8	11.8	32.5	30.5	25.8	22.8	21.6
Associate's degree 3	6.1	0.3	3.5	8.3	9.9	10.1	9.5
Bachelor's degree 4	9.1	*	2.9	12.3	16.9	18.8	18.4
Master's degree 5	3.8	*	0.2	3.4	8.9	11.4	11.4
Doctorate or professional degree 6	0.8	*	0.0	0.5	1.8	3.0	3.4
	Number						
All births	458,963	62,897	146,819	116,109	82,095	39,992	11,051
Not stated 7	4,377	488	1,124	1,080	933	573	179
Hispanic 9							
	Percent						
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
12th grade or less with no diploma	38.8	60.3	34.9	34.8	36.1	38.8	41.0
8th grade or less	13.7	7.6	9.0	14.2	17.9	20.9	23.3
9th-12th grade with no diploma	25.1	52.7	25.9	20.6	18.2	17.9	17.6
High school graduate 2	29.4	31.3	37.6	28.9	23.6	21.6	21.0
Some college credit, but no degree	17.3	8.2	22.1	19.7	15.9	13.9	12.9
Associate's degree 3	4.6	0.3	3.4	6.0	6.2	5.7	5.7
Bachelor's degree 4	7.1	0.0	1.9	8.5	12.6	12.7	12.3
Master's degree 5	2.1	*	0.1	1.7	4.5	5.5	5.1
Doctorate or professional degree 6	0.6	*	0.0	0.3	1.2	1.8	2.0
	Number						
All births	802,401	98,067	212,594	216,673	167,949	86,076	21,042
Not stated 7	10,074	1,050	2,230	2,719	2,312	1,349	414



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0.0 Quantity more than zero but less than 0.5.

\* Figure does not meet standards of reliability or precision; based on fewer than 20 births in the numerator.

1 Includes other races not shown and origin not stated.

2 Includes General Educational Development (GED).

3 Includes Associate in Arts and Associate in Science.

4 Includes Bachelor in Arts and Bachelor in Science.

5 For example, includes Master in Arts, Master in Science, Master of Engineering, Master of Education, Master of Social Work, and Master of Business Administration.

6 For example, includes Doctor of Philosophy, Doctor of Education, Doctor of Medicine, Doctor of Dental Surgery, Doctor of Veterinary Medicine, Doctor of Laws, and Juris Doctor.

7 No response reported for education attainment of mother item; includes births to residents of states using the 2003 Standard Certificate of Live Birth occurring in states using the 1989 Standard Certificate of Live Birth (0.3 percent). See "User Guide to the 2011 Public Use File."

8 Race and Hispanic origin are reported separately on the birth certificate. Race categories are consistent with the 1997 Office of Management and Budget standards; see "Technical Notes." Data by race are non-Hispanic and exclude mothers reporting multiple races.

9 Includes all persons of Hispanic origin of any race.

NOTE: Includes California, Colorado, District of Columbia, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Washington, Wisconsin, and Wyoming.

Documentation Table 3. Maternal pre-pregnancy body mass index (BMI), by age and race and Hispanic origin of mother: Total of 36 reporting states and the District of Columbia, 2011

BMI category <sup>1</sup> and race and Hispanic origin of mother	All ages	Under 20 years	20-24 years	25-29 years	30-34 years	35-39 years	40-54 years
All races <sup>2</sup>		Percent					
Underweight (BMI less than 18.5)	3.9	7.6	5.3	3.5	2.8	2.5	2.2
Normal weight (BMI of 18.5 to less than 25.0)	47.3	55.3	46.2	46.0	47.8	46.1	44.8
Overweight (BMI of 25.0 to less than 30.0)	25.3	22.1	24.6	25.6	25.9	26.7	27.9
Obese (BMI = 30.0 and over)	23.4	15.0	23.9	24.8	23.6	24.7	25.1
		Number					
Total <sup>3</sup>	3,267,934	280,826	771,743	934,830	807,018	378,458	95,059
Not stated <sup>4</sup>	146,765	12,377	33,268	40,032	36,486	19,185	5,417
White <sup>5</sup>		Percent					
Underweight (BMI less than 18.5)	4.0	9.4	5.9	3.5	2.7	2.4	2.3
Normal weight (BMI of 18.5 to less than 25.0)	50.5	55.8	48.3	49.7	52.0	50.4	49.6
Overweight (BMI of 25.0 to less than 30.0)	23.8	20.5	23.1	24.1	24.2	24.6	25.8
Obese (BMI = 30.0 and over)	21.8	14.4	22.7	22.8	21.1	22.5	22.3
		Number					
Total <sup>3</sup>	1,713,700	103,883	364,566	522,869	468,204	203,438	50,740
Not stated <sup>4</sup>	52,440	2,838	10,200	14,862	14,681	7,656	2,203
Black <sup>5</sup>		Percent					
Underweight (BMI less than 18.5)	3.6	6.2	4.7	2.9	1.9	1.5	1.3
Normal weight (BMI of 18.5 to less than 25.0)	36.9	52.9	41.0	32.8	29.5	27.0	25.6
Overweight (BMI of 25.0 to less than 30.0)	26.9	23.2	25.3	27.6	29.1	30.9	31.8
Obese (BMI = 30.0 and over)	32.6	17.6	29.0	36.7	39.5	40.7	41.4
		Number					
Total <sup>3</sup>	458,963	62,897	146,819	116,109	82,095	39,992	11,051
Not stated <sup>4</sup>	29,136	4,015	8,958	7,148	5,404	2,796	815
Hispanic <sup>6</sup>		Percent					

Underweight (BMI less than 18.5)	2.9	6.5	4.0	2.2	1.6	1.2	0.9
Normal weight (BMI of 18.5 to less than 25.0)	42.6	56.3	45.4	40.7	37.9	35.6	33.4
Overweight (BMI of 25.0 to less than 30.0)	29.3	23.1	27.4	30.1	31.8	33.3	34.7
Obese (BMI = 30.0 and over)	25.2	14.0	23.2	27.0	28.8	29.9	31.0
				Number			
Total 3	802,401	98,067	212,594	216,673	167,949	86,076	21,042
Not stated 4	39,878	4,094	9,560	11,187	9,097	4,730	1,210

1 For calculation of BMI, see "Technical Notes".

2 Includes other races not shown and origin not stated.

3 Total number of births to residents of areas reporting pre-pregnancy BMI.

4 No response reported for component measures for pre-pregnancy BMI; includes births to residents of states using the 2003 Standard Certificate of Live Birth occurring in states using the 1989 Standard Certificate of Live Birth (0.3 percent). See "Technical Notes."

5 Race and Hispanic origin are reported separately on the birth certificate. Race categories are consistent with the 1997 Office of Management and Budget standards; see "Technical Notes." Data by race are non-Hispanic and exclude mothers reporting multiple races.

6 Includes all persons of Hispanic origin of any race.

NOTES: Includes California, Colorado, Delaware, District of Columbia, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Washington, Wisconsin, and Wyoming.

Documentation Table 4. Mothers who smoked for the three months before pregnancy and anytime during pregnancy and those who quit before and during pregnancy, by age and race and Hispanic origin of mother: Total of 35 reporting states and the District of Columbia, 2011

Tobacco use and race and Hispanic origin	All births	Under 20 years	20-24 years	25-29 years	30-34 years	35-39 years	40-54 years
All races <sup>1</sup>		Percent					
Three months before	11.5	14.5	17.7	11.8	7.6	5.8	5.2
First trimester	8.6	11.1	13.5	8.8	5.5	4.4	4.2
Second trimester	7.4	9.1	11.6	7.6	4.8	3.8	3.7
Third trimester	7.1	8.6	11.0	7.3	4.6	3.7	3.6
Smoked anytime during pregnancy	8.9	11.5	13.9	9.0	5.7	4.5	4.3
Quit before pregnancy <sup>2</sup>	23.8	22.6	22.3	24.6	26.7	24.3	20.0
Quit during pregnancy <sup>3</sup>	20.1	24.9	20.9	18.8	18.8	17.6	15.7
White <sup>4</sup>							
Three months before	16.9	30.3	28.8	16.4	10.1	8.2	7.3
First trimester	12.9	23.8	22.7	12.4	7.3	6.2	5.8
Second trimester	11.3	20.1	19.7	10.8	6.4	5.5	5.2
Third trimester	10.8	18.9	18.8	10.4	6.2	5.3	5.0
Smoked anytime during pregnancy	13.2	24.5	23.3	12.6	7.5	6.3	6.0
Quit before pregnancy <sup>2</sup>	22.4	20.1	20.3	23.6	26.6	23.6	19.8
Quit during pregnancy <sup>3</sup>	18.4	22.5	18.9	17.2	17.5	16.3	15.3
Black <sup>4</sup>							
Three months before	9.4	5.8	10.7	11.1	9.2	6.6	6.1
First trimester	7.1	4.2	7.9	8.5	7.2	5.3	5.1
Second trimester	6.0	3.3	6.5	7.2	6.2	4.7	4.5
Third trimester	5.7	3.0	6.1	6.9	6.0	4.6	4.5
Smoked anytime during pregnancy	7.4	4.4	8.3	8.8	7.5	5.5	5.3
Quit before pregnancy <sup>2</sup>	23.1	27.8	24.6	22.6	20.6	18.9	15.3
Quit during pregnancy <sup>3</sup>	23.1	30.8	26.0	21.6	19.4	16.7	15.1
Hispanic <sup>5</sup>							
Three months before	3.0	3.3	4.1	3.1	2.2	1.8	1.6
First trimester	1.8	2.0	2.4	1.9	1.4	1.1	1.1
Second trimester	1.4	1.4	1.8	1.5	1.0	0.9	1.0
Third trimester	1.3	1.2	1.7	1.4	1.0	0.8	0.9
Smoked anytime during pregnancy	1.9	2.1	2.5	2.0	1.4	1.2	1.2
Quit before pregnancy <sup>2</sup>	39.2	38.7	40.5	39.1	38.5	36.6	28.7
Quit during pregnancy <sup>3</sup>	33.0	42.1	34.2	30.1	30.2	28.8	22.6

All races 1	Number						
Total	3,153,926	271,074	743,850	901,165	778,885	366,771	92,181
Not stated three months before 6	48,377	4,652	12,461	13,243	11,053	5,459	1,509
Not stated during pregnancy 6	48,710	4,654	12,592	13,349	11,142	5,467	1,506
Quit before pregnancy 2							
Smokers	357,026	38,681	129,357	104,856	58,396	20,985	4,751
Unknown if quit	1,606	163	546	480	300	93	24
Quit during pregnancy 3							
Smokers	276,039	30,515	101,901	80,153	43,433	16,150	3,887
Unknown if quit	827	93	299	226	136	55	18
White 4							
Total	1,635,395	99,113	347,580	498,049	446,808	195,198	48,647
Not stated three months before 6	14,623	1,118	3,510	4,211	3,695	1,643	446
Not stated during pregnancy 6	14,896	1,129	3,617	4,312	3,749	1,643	446
Quit before pregnancy 2							
Smokers	273,722	29,653	99,262	80,869	44,592	15,825	3,521
Unknown if quit	981	96	326	306	195	51	7
Quit during pregnancy 3							
Smokers	214,557	24,010	79,974	62,361	33,103	12,237	2,872
Unknown if quit	506	62	180	136	80	40	8
Black 4							
Total	437,830	59,403	139,332	111,300	78,903	38,270	10,622
Not stated three months before 6	11,389	1,497	3,831	2,919	1,893	984	265
Not stated during pregnancy 6	11,431	1,491	3,839	2,936	1,912	989	264
Quit before pregnancy 2							
Smokers	39,995	3,361	14,431	12,023	7,076	2,475	629
Unknown if quit	364	29	128	110	64	26	7
Quit during pregnancy 3							
Smokers	31,695	2,541	11,214	9,569	5,756	2,066	549
Unknown if quit	204	17	81	53	35	12	6
Hispanic 5							
Total	794,773	97,093	210,506	214,623	166,371	85,298	20,882
Not stated three months before 6	7,788	939	2,004	2,082	1,693	851	219
Not stated during pregnancy 6	7,742	927	2,005	2,056	1,699	844	211
Quit before pregnancy 2							
Smokers	23,700	3,146	8,520	6,593	3,629	1,482	330
Unknown if quit	120	17	48	24	21	8	2
Quit during pregnancy 3							
Smokers	15,006	2,022	5,251	4,175	2,320	988	250
Unknown if quit	47	7	20	11	6	1	2

1 Includes other races not shown and origin not stated.

2 Quit in the three months before pregnancy: births to women not reporting smoking during pregnancy per 100 women who smoked in the three months before pregnancy. See "Technical Notes."

3 Quit during pregnancy: births to women not reporting smoking in the third trimester of pregnancy per 100 women who smoked in either the first or second trimester. See "Technical Notes."

4 Race and Hispanic origin are reported separately on the birth certificate. Race categories are consistent with the 1997 Office of Management and Budget standards; see "Technical Notes." Data by race are non-Hispanic and exclude mothers reporting multiple races.

5 Includes all persons of Hispanic origin of any race.

6 No response reported for maternal smoking item; includes births to residents of states using the 2003 Standard Certificate of Live Birth occurring in states using the 1989 Standard Certificate of Live Birth (0.3 percent). See "Technical Notes."

NOTE: Includes California, Colorado, Delaware, District of Columbia, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Washington, Wisconsin, and Wyoming.

Documentation Table 5. Mother received WIC<sup>1</sup> food for herself during this pregnancy and infant was being breastfed at discharge, by age and race and Hispanic origin of mother: Total of 36 reporting states and the District of Columbia, 2011

Selected characteristic and race and Hispanic origin of mother	All births 2	Characteristic reported	All ages	Under 20 years	20-24 years	25-29 years	30-34 years	35-39 years	40-54 years	Not stated 3
All races 4			Percent							
Mother received WIC food for herself during this pregnancy	3,267,934	1,527,216	47.8	81.2	68.8	43.9	31.1	29.7	29.7	71,941
Infant was being breastfed at discharge 5	2,754,557	2,021,610	75.8	63.4	69.0	77.7	81.5	81.6	81.3	87,981
White 6										
Mother received WIC food for herself during this pregnancy	1,713,700	555,568	33.0	77.1	59.4	29.3	16.8	14.5	14.6	30,022
Infant was being breastfed at discharge 5	1,567,916	1,175,558	76.9	61.1	69.1	78.8	82.2	81.6	81.7	38,921
Black 6										
Mother received WIC food for herself during this pregnancy	458,963	304,459	67.9	82.0	77.0	65.4	56.1	50.1	47.6	10,841
Infant was being breastfed at discharge 5	428,751	246,065	60.3	49.0	54.8	62.7	68.2	71.8	72.4	20,427
Hispanic 7										
Mother received WIC food for herself during this pregnancy	802,401	563,847	71.4	85.7	79.7	69.1	62.3	60.6	60.2	12,330
Infant was being breastfed at discharge 5	550,955	448,397	83.1	78.6	81.1	84.1	85.6	85.8	85.2	11,485

1 The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC).

2 Total number of births to residents of areas reporting specified items.

3 No response reported for selected characteristic; includes births to residents of states using the 2003 Standard Certificate of Live Birth occurring in states using the 1989 Standard Certificate of Live Birth (0.3 percent). See "Technical Notes."

4 Includes other races not shown and origin not stated.

5 Excludes data for California which did not report infant was being breastfed at discharge; also excludes data for Delaware (see "Technical Notes").

6 Race and Hispanic origin are reported separately on the birth certificate. Race categories are consistent with the 1997 Office of Management and Budget standards; see "Technical Notes." Data by race are non-Hispanic and exclude mothers reporting multiple races.

7 Includes all persons of Hispanic origin of any race.

NOTE: Includes California, Colorado, Delaware, District of Columbia, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Washington, Wisconsin, and Wyoming.

Documentation Table 6. Pregnancy risk factors, by age and race and Hispanic origin of mother: Total of 36 reporting states and the District of Columbia, 2011

[Rates are number of live births with specified risk factor per 1,000 live births in specified group]

Risk factor and race and Hispanic origin of mother	All births <sup>1</sup>	Factor reported	All ages	Per 1,000							Not stated <sup>2</sup>
				Under 20 years	20-24 years	25-29 years	30-34 years	35-39 years	40-54 years		
All races <sup>3</sup>											
Diabetes											
Prepregnancy (Diagnosis prior to this pregnancy)	3,267,934	23,852	7.4	2.7	4.6	6.5	8.8	12.9	17.7	24,560	
Gestational (Diagnosis in this pregnancy)	3,267,934	156,365	48.2	15.6	27.2	44.7	60.7	83.8	102.0	24,560	
Hypertension											
Prepregnancy (Chronic)	3,267,934	45,456	14.0	5.0	8.1	12.2	16.8	25.1	38.5	24,560	
Gestational (PIH, preeclampsia)	3,267,934	145,258	44.8	46.7	43.2	43.8	43.6	47.6	60.5	24,560	
Eclampsia <sup>4</sup>	2,564,001	6,062	2.4	3.1	2.4	2.2	2.1	2.4	3.7	19,810	
Previous preterm birth	3,267,934	73,055	22.5	6.3	18.9	23.9	26.2	29.0	29.9	24,560	
Other previous poor pregnancy outcome	3,267,934	71,315	22.0	7.5	16.9	21.7	25.8	31.5	38.2	24,560	
Pregnancy resulted from infertility treatment	3,267,934	44,235	13.6	0.2	1.7	9.3	19.8	31.9	67.9	24,560	
Mother had a previous cesarean delivery <sup>5</sup>	2,155,242	450,080	210.1	116.4	172.1	199.5	226.5	259.2	268.0	12,736	
White <sup>6</sup>											
Diabetes											
Prepregnancy (Diagnosis prior to this pregnancy)	1,713,700	10,898	6.4	3.4	4.7	5.9	6.9	9.5	12.1	6,712	
Gestational (Diagnosis in this pregnancy)	1,713,700	77,869	45.6	18.7	28.9	42.0	53.0	71.4	87.4	6,712	
Hypertension											
Prepregnancy (Chronic)	1,713,700	23,103	13.5	5.0	8.0	12.0	15.5	22.4	32.6	6,712	
Gestational (PIH, preeclampsia)	1,713,700	83,570	49.0	50.8	48.6	49.3	46.5	49.9	63.5	6,712	
Eclampsia <sup>4</sup>	1,281,317	3,062	2.4	3.4	2.7	2.2	2.1	2.2	3.3	5,576	
Previous preterm birth	1,713,700	40,855	23.9	6.6	19.8	23.9	27.2	31.3	30.3	6,712	
Other previous poor pregnancy outcome	1,713,700	42,380	24.8	9.1	19.0	22.8	28.1	36.0	44.9	6,712	
Pregnancy resulted from infertility treatment	1,713,700	34,089	20.0	0.3	2.7	13.6	27.0	43.6	90.7	6,712	
Mother had a previous cesarean delivery <sup>5</sup>	1,108,477	224,829	203.4	102.2	161.8	188.3	217.9	252.2	261.8	2,926	
Black <sup>6</sup>											
Diabetes											
Prepregnancy (Diagnosis prior to this pregnancy)	458,963	4,517	9.9	2.8	5.7	9.3	15.2	22.6	29.7	4,535	
Gestational (Diagnosis in this pregnancy)	458,963	18,223	40.1	13.8	22.8	42.7	59.9	81.6	93.5	4,535	
Hypertension											
Prepregnancy (Chronic)	458,963	13,187	29.0	8.1	14.2	28.2	45.0	66.0	99.9	4,535	
Gestational (PIH, preeclampsia)	458,963	25,725	56.6	57.6	50.8	55.4	61.0	65.7	74.9	4,535	
Eclampsia <sup>4</sup>	348,444	1,365	4.0	4.5	3.2	3.7	4.4	4.7	8.0	3,725	
Previous preterm birth	458,963	14,703	32.4	8.5	26.1	39.7	43.4	44.5	48.0	4,535	
Other previous poor pregnancy outcome	458,963	13,581	29.9	10.2	23.2	34.9	40.0	45.7	45.3	4,535	
Pregnancy resulted from infertility treatment	458,963	1,810	4.0	*	0.5	2.5	6.5	14.7	29.2	4,535	
Mother had a previous cesarean delivery <sup>5</sup>	306,785	64,809	212.3	120.6	183.7	216.7	238.6	257.9	269.2	1,586	
Hispanic <sup>7</sup>											
Diabetes											
Prepregnancy (Diagnosis prior to this pregnancy)	802,401	6,247	7.8	1.9	3.6	6.5	11.3	16.9	25.6	2,019	
Gestational (Diagnosis in this pregnancy)	802,401	40,243	50.3	13.4	25.9	46.5	71.7	101.4	127.9	2,019	
Hypertension											
Prepregnancy (Chronic)	802,401	6,179	7.7	3.1	4.3	5.9	9.9	17.2	26.3	2,019	
Gestational (PIH, preeclampsia)	802,401	27,045	33.8	36.0	30.7	30.1	34.8	41.5	53.7	2,019	
Eclampsia <sup>4</sup>	705,456	1,215	1.7	2.1	1.6	1.6	1.5	2.1	3.4	1,674	
Previous preterm birth	802,401	12,542	15.7	4.5	12.8	17.6	19.4	21.7	22.9	2,019	
Other previous poor pregnancy outcome	802,401	10,497	13.1	4.0	9.7	14.0	16.8	20.0	23.7	2,019	
Pregnancy resulted from infertility treatment	802,401	3,314	4.1	0.2	0.7	3.0	6.2	10.8	24.9	2,019	
Mother had a previous cesarean delivery <sup>5</sup>	558,689	123,223	221.0	129.0	182.1	216.1	242.4	274.7	282.1	1,187	

\* Figure does not meet standards of reliability or precision; based on fewer than 20 births in the numerator.

<sup>1</sup> Total number of births to residents of areas reporting specified pregnancy risk factor.

<sup>2</sup> No response reported for pregnancy risk factor item; includes births to residents of states using the 2003 Standard Certificate of Live Birth occurring in states using the 1989 Standard Certificate of Live Birth (0.3 percent). See "Technical Notes".

<sup>3</sup> Includes other races not shown and origin not stated.

<sup>4</sup> Excludes data for Idaho, Kentucky, Michigan, Nebraska, New York City, Pennsylvania, South Carolina, Tennessee, and Washington.

<sup>5</sup> Excludes women who have not had a previous pregnancy and for whom total birth order is unknown.

<sup>6</sup> Race and Hispanic origin are reported separately on the birth certificate. Race categories are consistent with the 1997 Office of Management and Budget standards; see "Technical Notes." Data by race are non-Hispanic and exclude mothers reporting multiple races.

<sup>7</sup> Includes all persons of Hispanic origin of any race.

NOTE: Includes California, Colorado, Delaware, District of Columbia, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Washington, Wisconsin, and Wyoming.



Documentation Table 7. Infections present and/or treated during this pregnancy, by age and race and Hispanic origin of mother: Total of 36 reporting states and the District of Columbia, 2011

Infection and race and Hispanic origin of mother	All births 1	Condition reported	All ages	Under 20 years	20-24 years	25-29 years	30-34 years	35-39 years	40-54 years	Not stated 2
All races 3			per 100,000							
Gonorrhea	3,267,934	8,725	269.4	852.0	492.6	173.2	86.3	61.4	62.8	28,680
Syphilis	3,267,934	1,881	58.1	69.7	72.6	54.8	39.8	60.8	83.0	28,680
Chlamydia	3,267,934	58,229	1,797.6	5,825.8	3,376.0	1,125.1	515.0	364.3	285.1	28,680
Hepatitis B	3,267,934	6,655	205.4	75.8	139.5	208.6	247.0	305.8	341.5	28,680
Hepatitis C	3,267,934	6,900	213.0	106.7	231.8	254.8	197.8	172.4	255.3	28,680
White 4										
Gonorrhea	1,713,700	2,124	124.5	391.9	250.5	92.8	50.4	35.1	41.6	7,885
Syphilis	1,713,700	417	24.4	28.1	33.1	25.7	15.7	23.2	*	7,885
Chlamydia	1,713,700	18,690	1,095.7	4,255.6	2,377.1	703.4	306.4	231.2	214.0	7,885
Hepatitis B	1,713,700	1,074	63.0	40.6	60.3	61.5	65.4	70.1	91.1	7,885
Hepatitis C	1,713,700	4,958	290.7	174.2	353.3	348.4	245.5	199.1	267.5	7,885
Black 4										
Gonorrhea	458,963	4,976	1,097.2	2,476.3	1,527.8	704.5	347.3	250.9	293.7	5,437
Syphilis	458,963	936	206.4	186.8	216.5	201.2	166.3	261.1	339.5	5,437
Chlamydia	458,963	22,973	5,065.4	11,599.1	7,175.9	3,120.2	1,603.5	1,016.4	688.3	5,437
Hepatitis B	458,963	1,525	336.3	122.4	214.4	383.2	475.4	577.9	770.9	5,437
Hepatitis C	458,963	567	125.0	77.3	104.1	131.5	133.0	182.5	339.5	5,437
Hispanic 5										
Gonorrhea	802,401	1,177	147.4	308.1	216.8	110.4	75.4	57.2	*	3,792
Syphilis	802,401	412	51.6	42.0	45.4	51.0	50.9	70.1	95.7	3,792
Chlamydia	802,401	12,953	1,621.9	3,717.7	2,541.6	1,142.5	619.0	442.7	306.1	3,792
Hepatitis B	802,401	675	84.5	63.5	80.3	89.5	85.0	98.1	114.8	3,792
Hepatitis C	802,401	860	107.7	56.3	102.5	113.1	123.3	114.5	191.3	3,792

\* Figure does not meet standards of reliability or precision; based on fewer than 20 births in the numerator.

1 Total number of births to residents of areas reporting specified infection.

2 No response reported for infections present and/or treated during this pregnancy item; includes births to residents of states using the 2003 Standard Certificate of Live Birth occurring in states using the 1989 Standard Certificate of Live Birth (0.3 percent). See "Technical Notes."

3 Includes other races not shown and origin not stated.

4 Race and Hispanic origin are reported separately on the birth certificate. Race categories are consistent with the 1997 Office of Management and Budget standards; see "Technical Notes." Data by race are non-Hispanic and exclude mothers reporting multiple races.

5 Includes all persons of Hispanic origin of any race.

NOTE: Includes California, Colorado, Delaware, District of Columbia, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Washington, Wisconsin, and Wyoming.

Documentation Table 8. Month prenatal care began, by age and race and Hispanic origin of mother: Total of 36 reporting states and the District of Columbia, 2011

Month care began and race and Hispanic origin of mother	All ages	Under 20 years	20-24 years	25-29 years	30-34 years	35-39 years	40-54 years
All races 1							
	Percent						
1st trimester	73.7	58.0	66.4	76.0	80.2	79.8	77.0
2nd trimester	20.3	31.7	25.7	18.7	15.6	15.9	18.0
Late or no care	6.0	10.4	7.9	5.3	4.2	4.3	5.0
3rd trimester	4.5	7.8	6.0	4.0	3.2	3.2	3.6
No care	1.5	2.6	2.0	1.3	1.1	1.2	1.4
	Number						
Total	3,267,934	280,826	771,743	934,830	807,018	378,458	95,059
Not stated 2	123,053	11,687	30,659	33,542	28,732	14,451	3,982
White 3							
	Percent						
1st trimester	78.8	63.9	70.5	80.4	84.3	83.9	80.6
2nd trimester	17.0	28.6	23.3	15.7	12.8	13.1	15.5
Late or no care	4.2	7.5	6.2	3.9	2.9	3.1	3.9
3rd trimester	3.3	6.1	5.0	3.0	2.3	2.3	2.9
No care	0.9	1.4	1.3	0.8	0.7	0.8	1.0
	Number						
Total	1,713,700	103,883	364,566	522,869	468,204	203,438	50,740
Not stated 2	48,354	3,155	10,690	14,021	12,771	6,038	1,679
Black 3							
	Percent						
1st trimester	63.4	51.5	59.8	66.9	70.0	70.3	68.0
2nd trimester	26.7	35.3	29.6	24.3	21.6	21.4	23.0
Late or no care	9.9	13.2	10.6	8.8	8.4	8.4	9.0
3rd trimester	6.8	9.2	7.3	6.1	5.9	5.7	5.8
No care	3.0	3.9	3.3	2.7	2.6	2.6	3.2
	Number						
Total	458,963	62,897	146,819	116,109	82,095	39,992	11,051
Not stated 2	27,842	4,077	9,060	6,765	4,872	2,407	661
Hispanic 4							
	Percent						
1st trimester	68.3	56.4	64.6	70.9	73.5	73.7	71.7
2nd trimester	24.1	32.3	26.6	22.4	20.6	20.6	22.2
Late or no care	7.5	11.3	8.8	6.8	5.8	5.7	6.1
3rd trimester	5.5	8.3	6.4	4.9	4.2	4.1	4.5
No care	2.1	3.0	2.4	1.8	1.6	1.7	1.6
	Number						
Total	802,401	98,067	212,594	216,673	167,949	86,076	21,042
Not stated 2	25,736	3,158	6,820	7,015	5,246	2,790	707

1 Includes other races not shown and origin not stated.

2 No response reported for timing of prenatal care; includes births to residents of states using the 2003 Standard Certificate of Live Birth occurring in states using the 1989 Standard Certificate of Live Birth (0.3 percent). See "Technical Notes."

3 Race and Hispanic origin are reported separately on the birth certificate. Race categories are consistent with the 1997 Office of Management and Budget standards; see "Technical Notes." Data by race are non-Hispanic and exclude mothers reporting multiple races.

4 Includes all persons of Hispanic origin of any race.

NOTE: Includes California, Colorado, Delaware, District of Columbia, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Washington, Wisconsin, and Wyoming.

Documentation Table 9. Obstetric procedures, by age and race and Hispanic origin of mother: Total of 36 reporting states and the District of Columbia, 2011

[Rates are number of live births with specified obstetric procedure per 1,000 live births in specified group]

Obstetric procedure and race and Hispanic origin of mother	All births <sup>1</sup>	Procedure reported	All ages	Per 1,000						Not stated <sup>2</sup>
				Under 20 years	20-24 years	25-29 years	30-34 years	35-39 years	40-54 years	
All races <sup>3</sup>										
Cervical cerclage	3,267,934	10,686	3.3	1.7	2.3	3.1	3.9	5.1	6.4	26,699
Tocolysis <sup>4</sup>	3,256,677	31,662	9.8	10.7	10.3	9.6	9.4	9.4	10.3	26,664
External cephalic version <sup>5</sup>	2,701,314	6,146	2.3	1.6	1.9	2.2	2.7	2.7	3.2	14,265
<i>Percent successful</i> <sup>6</sup>	2,701,314	3,195	52.0	48.5	49.4	52.0	52.8	52.6	61.6	14,265
White <sup>7</sup>										
Cervical cerclage	1,713,700	4,772	2.8	1.4	2.0	2.5	3.1	4.3	5.7	7,150
Tocolysis <sup>4</sup>	1,707,542	18,658	11.0	13.2	12.0	10.7	10.3	10.4	10.7	7,150
External cephalic version <sup>5</sup>	1,399,889	3,835	2.7	1.6	2.3	2.6	3.1	3.3	3.7	2,760
<i>Percent successful</i> <sup>6</sup>	1,399,889	1,892	49.3	37.2	44.8	49.2	50.9	51.2	62.7	2,760
Black <sup>7</sup>										
Cervical cerclage	458,963	3,381	7.5	3.2	4.5	7.6	11.6	14.1	15.3	5,721
Tocolysis <sup>4</sup>	456,007	5,474	12.2	13.2	12.4	11.7	11.5	11.9	13.1	5,721
External cephalic version <sup>5</sup>	320,578	410	1.3	1.2	1.1	1.1	1.5	1.6	2.8	2,198
<i>Percent successful</i> <sup>6</sup>	320,578	259	63.2	65.4	61.4	64.8	60.0	65.2	*	2,198
Hispanic <sup>8</sup>										
Cervical cerclage	802,401	1,712	2.1	1.2	1.6	2.0	2.6	3.3	4.2	2,388
Tocolysis <sup>4</sup>	800,985	5,233	6.6	6.7	6.1	6.6	6.6	7.1	7.4	2,386
External cephalic version <sup>5</sup>	727,698	1,324	1.8	1.5	1.6	1.8	2.2	2.0	2.6	1,533
<i>Percent successful</i> <sup>6</sup>	727,698	735	55.5	49.3	56.8	56.3	57.1	54.5	52.0	1,533

\* Figure does not meet standards of reliability or precision; based on fewer than 20 births in the numerator.

<sup>1</sup> Total number of births to residents of areas reporting specified obstetric procedure.

<sup>2</sup> No response reported for obstetric procedure item; includes births to residents of states using the 2003 Standard Certificate of Live Birth occurring in states using the 1989 Standard Certificate of Live Birth (0.3 percent). See "Technical Notes".

<sup>3</sup> Includes other races not shown and origin not stated.

<sup>4</sup> Excludes data for Delaware (see "Technical Notes").

<sup>5</sup> Excludes data for Georgia, Illinois, Louisiana, Maryland, and Ohio (see "Technical Notes").

<sup>6</sup> Percent successful external cephalic version (ECV) is the number of successful ECVs per 100 live births to women with an attempted ECV in specified group.

<sup>7</sup> Race and Hispanic origin are reported separately on the birth certificate. Race categories are consistent with the 1997 Office of Management and Budget standards; see "Technical Notes." Data by race are non-Hispanic and exclude mothers reporting multiple races.

<sup>8</sup> Includes all persons of Hispanic origin of any race.

NOTE: Includes California, Colorado, Delaware, District of Columbia, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Washington, Wisconsin, and Wyoming.

Documentation Table 10. Principal source of payment for the delivery, by age and race and Hispanic origin of mother: Total of 36 reporting states and the District of Columbia, 2011

[Percents are number of live births with specified source of payment per 100 live births in specified group]

Source of payment and race and Hispanic origin of mother	All ages	Under 20 years	20-24 years	25-29 years	30-34 years	35-39 years	40-54 years
All races 1							
				Percent			
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Medicaid	44.9	76.1	66.4	41.8	28.0	26.1	26.6
Private insurance	46.1	15.5	23.5	48.8	63.8	65.6	64.9
Self-pay	4.2	3.7	4.0	4.2	4.2	4.6	4.9
Other	4.8	4.7	6.1	5.1	4.0	3.7	3.6
				Number			
Total 2	3,267,934	280,826	771,743	934,830	807,018	378,458	95,059
Not stated 3	63,249	5,514	15,132	18,262	15,085	7,320	1,936
White 4							
				Percent			
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Medicaid	32.7	71.8	58.6	29.9	16.8	14.5	15.2
Private insurance	60.1	22.0	32.3	62.6	77.2	79.4	78.1
Self-pay	2.9	1.8	2.9	2.9	2.8	3.2	4.0
Other	4.3	4.5	6.2	4.6	3.2	2.8	2.7
				Number			
Total 2	1,713,700	103,883	364,566	522,869	468,204	203,438	50,740
Not stated 3	24,501	1,451	5,327	7,611	6,526	2,824	762
Black 4							
				Percent			
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Medicaid	66.8	81.5	78.7	65.7	51.4	42.8	40.3
Private insurance	25.7	12.4	14.5	26.7	40.4	48.1	50.3
Self-pay	2.9	2.4	2.2	2.9	3.7	4.4	4.9
Other	4.5	3.7	4.6	4.8	4.5	4.7	4.6
				Number			
Total 2	458,963	62,897	146,819	116,109	82,095	39,992	11,051
Not stated 3	8,925	1,271	2,837	2,286	1,545	795	191
Hispanic 5							
				Percent			
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Medicaid	61.4	77.5	71.4	58.9	50.5	48.9	49.6
Private insurance	24.6	10.4	14.7	26.5	35.0	37.2	37.3
Self-pay	8.0	6.9	7.5	8.3	8.7	8.4	7.8
Other	6.0	5.2	6.4	6.3	5.8	5.5	5.4
				Number			
Total 2	802,401	98,067	212,594	216,673	167,949	86,076	21,042
Not stated 3	14,943	1,773	3,907	4,202	3,153	1,526	382

1 Includes other races not shown and origin not stated.

- 2 Total number of births to residents of areas reporting principal source of payment for the delivery.
- 3 No response reported for selected source of payment; includes births to residents of states using the 2003 Standard Certificate of Live Birth occurring in states using the 1989 Standard Certificate of Live Birth (0.3 percent). See "Technical notes".
- 4 Race and Hispanic origin are reported separately on the birth certificate. Race categories are consistent with the 1997 Office of Management and Budget standards; see "Technical Notes." Data by race are non-Hispanic and exclude mothers reporting multiple races.
- 5 Includes all persons of Hispanic origin of any race.

NOTE: Includes California, Colorado, Delaware, District of Columbia, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Washington, Wisconsin, and Wyoming.

Documentation Table 11. Live births by interval since last live birth, by age and race and Hispanic origin of mother: Total of 36 reporting states and the District of Columbia, 2011

Interval since last live birth and race and Hispanic origin of mother	All ages	Under 20 years	20-24 years	25-29 years	30-34 years	35-39 years	40-54 years
All races 1							
	Percent						
0-3 months (plural deliveries)	2.5	3.7	2.0	2.2	2.6	2.9	4.2
4-11 months	1.4	6.7	2.8	1.2	0.7	0.5	0.4
12-17 months	8.5	26.7	14.7	8.2	5.7	4.6	3.5
18-23 months	12.6	22.6	16.9	12.9	11.1	9.1	6.8
24-35 months	23.1	25.9	26.8	23.3	23.2	19.2	14.6
36-47 months	15.7	10.2	17.6	16.2	15.8	14.1	11.1
48-59 months	10.5	3.2	10.4	11.6	10.4	10.1	8.7
60-71 months	7.0	0.7	5.0	8.4	7.3	7.4	7.2
72 months and over	18.5	0.2	3.7	16.0	22.9	32.0	43.4
	Number						
All births 2	1,975,274	52,248	388,319	589,581	576,613	294,642	73,871
Not stated 3	165,460	5,718	30,959	46,432	47,641	27,214	7,496
Median between 1st and 2nd births (months)	37	21	29	37	40	47	60
White 4							
	Percent						
0-3 months (plural deliveries)	2.8	4.1	2.0	2.5	3.0	3.5	5.1
4-11 months	1.1	6.5	2.5	1.0	0.6	0.5	0.4
12-17 months	8.1	28.6	15.1	8.2	5.6	4.6	3.9
18-23 months	14.1	23.5	18.5	15.0	12.8	10.5	8.1
24-35 months	26.6	25.1	28.5	27.3	27.8	22.9	17.6
36-47 months	16.6	8.7	17.3	16.6	17.6	15.9	12.6
48-59 months	9.9	2.8	9.4	10.4	9.8	10.3	9.1
60-71 months	6.1	0.5	4.1	6.9	6.1	7.0	7.2
72 months and over	14.6	0.2	2.6	12.2	16.7	24.8	36.0
	Number						
All births 2	996,501	15,343	166,706	303,295	320,182	153,273	37,702
Not stated 3	72,524	1,434	11,257	20,488	22,967	12,843	3,535
Median between 1st and 2nd births (months)	34	20	28	33	36	41	50
Black 4							
	Percent						
0-3 months (plural deliveries)	2.8	4.4	2.8	2.5	2.6	2.8	3.2
4-11 months	2.4	7.6	3.8	1.9	1.3	0.8	0.5
12-17 months	11.1	26.6	16.5	9.7	7.0	5.4	3.4
18-23 months	11.8	21.7	16.3	10.4	8.8	7.2	5.1
24-35 months	18.7	24.4	24.6	17.5	15.1	13.6	10.8
36-47 months	13.8	10.1	16.6	14.7	12.0	10.7	9.7
48-59 months	10.3	3.9	10.1	12.5	10.1	9.0	8.0
60-71 months	7.2	0.9	5.1	9.6	8.2	7.0	7.0
72 months and over	21.8	0.3	4.1	21.1	34.8	43.4	52.3
	Number						
All births 2	283,417	13,337	80,124	84,167	64,330	32,477	8,982
Not stated 3	33,817	1,963	8,351	9,262	8,246	4,619	1,376
Median between 1st and 2nd births (months)	38	20	28	42	51	60	76
Hispanic 5							
	Percent						
0-3 months (plural deliveries)	1.7	3.0	1.5	1.5	1.7	1.8	2.3
4-11 months	1.5	6.2	2.6	1.2	0.8	0.6	0.4
12-17 months	8.1	25.3	12.7	7.1	5.4	4.5	3.0
18-23 months	10.5	22.5	15.0	10.0	8.2	6.8	5.0
24-35 months	18.9	27.5	25.8	18.6	16.1	13.5	10.3
36-47 months	14.8	11.4	18.8	16.2	13.2	11.1	8.6
48-59 months	11.6	3.2	12.1	13.5	11.5	9.7	7.7
60-71 months	8.6	0.7	6.4	10.7	9.4	8.3	7.3
72 months and over	24.2	0.2	5.1	21.2	33.5	43.8	55.3
	Number						
All births 2	527,299	20,219	118,373	160,391	136,749	73,476	18,091
Not stated 3	34,364	1,358	7,244	10,274	9,071	5,125	1,292
Median between 1st and 2nd births (months)	43	22	32	44	52	62	81

1 Includes other races not shown and origin not stated.

2 Includes all births of second or higher order birth to residents of areas reporting interval since last live birth.

3 No response reported for interval since last live birth, for births which are second and higher order; including births to residents of states using the 2003 Standard Certificate of Live Birth occurring in states using the 1989 Standard Certificate of Live Birth (0.3 percent). See "Technical Notes."

4 Race and Hispanic origin are reported separately on the birth certificate. Race categories are consistent with the 1997 Office of Management and Budget standards; see "Technical Notes." Data by race are non-Hispanic and exclude mothers reporting multiple races.

5 Includes all persons of Hispanic origin of any race.

NOTES: Includes California, Colorado, Delaware, District of Columbia, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Missouri, Montana, Nebraska, New Hampshire, Nevada, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Washington, Wisconsin, and Wyoming.



Documentation Table 12. Onset of labor, by age and race and Hispanic origin of mother: Total of 35 reporting states and the District of Columbia, 2011

[Rates are number of live births with specified onset of labor per 1,000 live births in specified group]

Onset of labor by race and Hispanic origin of mother	All births 1	Condition reported	All ages	Under 20 years	20-24 years	25-29 years	30-34 years	35-39 years	40-54 years	Not stated 2
All races 3			per 1,000							
Premature rupture of the membranes (prolonged, >= 12 hrs)	3,256,677	108,860	33.7	33.8	32.6	32.6	34.4	35.5	39.6	24,904
Precipitous labor (< 3 hrs)	3,256,677	83,351	25.8	17.6	23.4	26.4	28.5	29.0	27.5	24,911
Prolonged labor (>= 20 hrs)	3,256,677	40,798	12.6	16.0	13.9	12.4	11.6	10.6	10.5	24,911
White 4										
Premature rupture of the membranes (prolonged, >= 12 hrs)	1,707,542	59,184	34.8	35.0	33.5	33.8	35.3	36.9	41.5	6,651
Precipitous labor (< 3 hrs)	1,707,542	44,846	26.4	16.1	22.5	26.1	29.8	30.4	29.5	6,655
Prolonged labor (>= 20 hrs)	1,707,542	22,814	13.4	16.3	14.8	13.7	12.3	11.7	12.2	6,655
Black 4										
Premature rupture of the membranes (prolonged, >= 12 hrs)	456,007	17,215	38.1	39.6	37.0	36.1	39.4	41.2	46.2	4,696
Precipitous labor (< 3 hrs)	456,007	12,818	28.4	23.0	27.8	30.3	30.4	30.2	26.4	4,697
Prolonged labor (>= 20 hrs)	456,007	5,468	12.1	15.9	13.3	10.7	10.8	9.9	8.4	4,697
Hispanic 5										
Premature rupture of the membranes (prolonged, >= 12 hrs)	800,985	20,636	25.8	27.8	26.0	24.2	26.9	26.6	27.8	2,233
Precipitous labor (< 3 hrs)	800,985	18,049	22.6	15.1	20.8	24.9	25.3	24.4	22.9	2,235
Prolonged labor (>= 20 hrs)	800,985	8,395	10.5	15.0	12.2	9.4	9.0	7.6	8.0	2,235

1 Total number of births to residents of areas reporting specified onset of labor.

2 No response reported for onset of labor item; includes births to residents of states using the 2003 Standard Certificate of Live Birth occurring in states using the 1989 Standard Certificate of Live Birth (0.3 percent). The number of not stated responses differs for premature rupture of membranes because this item is handled differently in the edits than precipitous and prolonged labor. See "Technical notes".

3 Includes other races not shown and origin not stated.

4 Race and Hispanic origin are reported separately on the birth certificate. Race categories are consistent with the 1997 Office of Management and Budget standards; see "Technical Notes." Data by race are non-Hispanic and exclude mothers reporting multiple races.

5 Includes all persons of Hispanic origin of any race.

NOTE: Includes California, Colorado, District of Columbia, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Washington, Wisconsin, and Wyoming.

Documentation Table 13. Characteristics of labor and delivery, by age and race and Hispanic origin of mother: Total of 36 reporting states and the District of Columbia, 2011

[Rates are number of live births with specified characteristic per 1,000 live births in specified group]

Labor and delivery characteristic and race and Hispanic origin of mother	All births <sup>1</sup>	Characteristic reported	All ages	Under 20 years	20-24 years	25-29 years	30-34 years	35-39 years	40-54 years	Not stated <sup>2</sup>
All races <sup>3</sup>										
Induction of labor	3,267,934	772,298	237.8	266.9	254.0	243.4	223.6	207.2	206.6	20,091
Augmentation of labor	3,267,934	676,804	208.4	263.9	232.9	211.4	189.2	165.8	147.9	20,091
Steroids (glucocorticoids) for fetal lung maturation <sup>4</sup>	3,256,677	43,391	13.4	13.1	12.8	12.6	13.4	15.4	19.6	20,056
Antibiotics received by mother during labor	3,267,934	669,038	206.0	208.3	205.2	201.7	207.3	210.7	217.4	20,091
Clinical chorioamnionitis during labor	3,267,934	40,962	12.6	18.6	14.3	12.3	11.2	9.5	9.1	20,091
Moderate/heavy meconium staining of amniotic fluid <sup>4</sup>	3,256,677	159,699	49.3	55.2	50.6	48.6	48.3	47.2	47.6	20,056
Fetal intolerance of labor <sup>4</sup>	3,256,677	155,352	48.0	55.6	49.6	46.7	45.6	46.3	52.5	20,056
Epidural or spinal anesthesia during labor	3,267,934	2,300,957	708.5	727.3	712.8	705.5	706.5	700.4	694.9	20,091
White <sup>5</sup>										
Induction of labor	1,713,700	471,405	275.8	338.3	306.1	282.3	253.4	235.3	232.0	4,525
Augmentation of labor	1,713,700	361,133	211.3	274.2	240.7	217.7	192.6	168.4	149.1	4,525
Steroids (glucocorticoids) for fetal lung maturation <sup>4</sup>	1,707,542	25,900	15.2	16.3	14.9	14.3	14.7	17.3	21.0	4,525
Antibiotics received by mother during labor	1,713,700	371,680	217.5	215.4	211.9	213.2	220.9	227.5	234.0	4,525
Clinical chorioamnionitis during labor	1,713,700	18,429	10.8	14.9	11.9	11.1	9.9	8.5	8.7	4,525
Moderate/heavy meconium staining of amniotic fluid <sup>4</sup>	1,707,542	74,879	44.0	46.5	43.7	43.6	44.2	43.4	44.8	4,525
Fetal intolerance of labor <sup>4</sup>	1,707,542	84,135	49.4	62.3	53.2	48.3	46.1	45.8	51.8	4,525
Epidural or spinal anesthesia during labor	1,713,700	1,275,192	746.1	794.4	758.1	742.3	739.1	731.8	721.7	4,525
Black <sup>5</sup>										
Induction of labor	458,963	102,038	223.9	250.0	227.5	221.7	214.7	201.9	199.4	3,205
Augmentation of labor	458,963	93,195	204.5	255.0	224.4	197.1	174.5	153.3	138.7	3,205
Steroids (glucocorticoids) for fetal lung maturation <sup>4</sup>	456,007	7,959	17.6	15.7	16.4	16.7	19.3	21.4	26.1	3,205
Antibiotics received by mother during labor	458,963	112,070	245.9	263.0	255.1	238.1	235.6	231.2	237.5	3,205
Clinical chorioamnionitis during labor	458,963	6,012	13.2	18.4	15.4	11.2	10.8	9.3	8.1	3,205
Moderate/heavy meconium staining of amniotic fluid <sup>4</sup>	456,007	28,508	63.0	67.7	62.6	60.0	63.7	63.8	63.9	3,205
Fetal intolerance of labor <sup>4</sup>	456,007	25,756	56.9	64.2	57.6	54.5	53.0	56.6	60.8	3,205
Epidural or spinal anesthesia during labor	458,963	333,772	732.3	748.3	738.7	727.5	721.9	721.4	725.6	3,205
Hispanic <sup>6</sup>										
Induction of labor	802,401	144,866	180.9	205.2	191.5	176.4	168.5	165.1	170.9	1,611
Augmentation of labor	802,401	161,848	202.1	258.8	224.8	196.6	176.7	159.0	144.2	1,611
Steroids (glucocorticoids) for fetal lung maturation <sup>4</sup>	800,985	6,287	7.9	8.0	6.9	7.1	8.3	10.1	12.5	1,609
Antibiotics received by mother during labor	802,401	130,562	163.0	165.7	161.7	158.4	163.7	170.6	176.3	1,611
Clinical chorioamnionitis during labor	802,401	11,034	13.8	22.1	17.0	12.5	10.1	8.1	8.8	1,611
Moderate/heavy meconium staining of amniotic fluid <sup>4</sup>	800,985	42,185	52.8	56.3	53.8	52.7	51.2	50.0	50.0	1,609
Fetal intolerance of labor <sup>4</sup>	800,985	32,565	40.7	42.8	38.2	38.4	41.5	46.0	54.0	1,609
Epidural or spinal anesthesia during labor	802,401	493,771	616.6	646.5	624.0	605.6	606.5	612.7	612.5	1,611

<sup>1</sup> Total number of births to residents of areas reporting specified labor and delivery characteristic.

<sup>2</sup> No response reported for characteristic of labor and delivery item; includes births to residents of states using the 2003 Standard Certificate of Live Birth occurring in states using the 1989 Standard Certificate of Live Birth (0.3 percent). See "Technical Notes".

<sup>3</sup> Includes other races not shown and origin not stated.

<sup>4</sup> Excludes data for Delaware (see "Technical Notes").

<sup>5</sup> Race and Hispanic origin are reported separately on the birth certificate. Race categories are consistent with the 1997 Office of Management and Budget standards; see "Technical Notes." Data by race are non-Hispanic and exclude mothers reporting multiple races.

<sup>6</sup> Includes all persons of Hispanic origin of any race.

NOTE: Includes California, Colorado, Delaware, District of Columbia, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Washington, Wisconsin, and Wyoming.

Documentation Table 14. Primary cesarean delivery and vaginal birth after previous cesarean delivery, by age and race and Hispanic origin of mother: Total of 36 reporting states and the District of Columbia, 2011

Method of delivery and race and Hispanic origin of mother	Total 1	Method reported	All ages	Under 20 years	20-24 years	25-29 years	30-34 years	35-39 years	40-54 years
All races 2			Percent						
Primary cesarean 3	2,785,084	647,779	23.3	20.3	21.0	22.1	24.4	28.7	36.7
Vaginal birth after cesarean delivery 4	456,192	44,203	9.7	9.6	9.0	10.0	10.0	9.4	9.3
White 5									
Primary cesarean 3	1,478,554	343,720	23.2	20.7	20.9	22.1	24.0	27.9	36.2
Vaginal birth after cesarean delivery 4	227,304	22,662	10.0	6.8	7.8	10.3	10.5	10.1	10.3
Black 5									
Primary cesarean 3	387,208	101,190	26.1	22.2	23.9	25.4	29.1	34.8	42.4
Vaginal birth after cesarean delivery 4	66,886	7,138	10.7	12.9	10.8	10.8	10.5	10.2	10.3
Hispanic 6									
Primary cesarean 3	675,769	144,337	21.4	18.8	19.3	20.1	23.0	27.7	34.4
Vaginal birth after cesarean delivery 4	124,318	10,547	8.5	9.2	9.0	8.9	8.3	7.7	7.3

1 Total for primary cesarean is the number of births to women delivering without a previous cesarean. Total for vaginal birth after cesarean delivery is the number of births to women delivering after a previous cesarean.

2 Includes other races not shown and origin not stated.

3 Primary cesarean rate is the number of births to women having a cesarean delivery per 100 births to women without a previous cesarean.

4 Vaginal birth after cesarean delivery rate is the number of births to women having a vaginal delivery per 100 births to women with a previous cesarean delivery.

5 Race and Hispanic origin are reported separately on the birth certificate. Race categories are consistent with the 1997 Office of Management and Budget standards; see "Technical Notes." Data by race are non-Hispanic and exclude mothers reporting multiple races.

6 Includes all persons of Hispanic origin of any race.

NOTE: Includes California, Colorado, Delaware, District of Columbia, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Washington, Wisconsin, and Wyoming.

Documentation Table 14a. Primary cesarean delivery and vaginal birth after cesarean delivery (VBAC), by race and Hispanic origin of mother: 36 states, the District of Columbia, and Puerto Rico, 2011

[By place of residence]

State	Primary cesarean delivery rate <sup>1,2</sup>	Rate of vaginal births after previous cesarean <sup>2,3</sup>
Total <sup>4</sup>	23.3	9.7
California	21.6	5.0
Colorado	18.6	19.6
Delaware	21.7	11.9
District of Columbia	26.9	18.8
Florida	28.8	6.0
Georgia	24.4	7.7
Idaho	15.9	17.0
Illinois	22.7	11.8
Indiana	22.3	10.4
Iowa	20.7	10.2
Kansas	20.9	9.8
Kentucky	26.1	6.5
Louisiana	29.3	5.6
Maryland	26.4	11.9
Michigan	24.4	10.5
Missouri	22.9	14.2
Montana	20.9	12.0
Nebraska	21.0	9.3
Nevada	24.2	8.8
New Hampshire	22.6	13.0
New Mexico	17.8	16.3
New York	25.0	11.4
North Carolina	22.8	11.3
North Dakota	19.5	12.5
Ohio	21.8	12.3
Oklahoma	23.7	5.5
Oregon	19.9	14.7
Pennsylvania	22.7	13.7
South Carolina	25.6	8.8
South Dakota	16.2	16.7
Tennessee	24.2	10.9
Texas	25.4	8.0
Utah	14.1	19.0
Vermont	19.7	18.2
Washington	20.8	15.4
Wisconsin	18.3	17.8
Wyoming	18.6	11.1
Puerto Rico	35.3	8.6

1 Primary cesarean rate is the number of births to women having a cesarean delivery per 100 births to women without a previous cesarean.

2 Data are based on the 2003 Revision of the U.S. Certificate of Live Birth; these data are not comparable with those based on the 1989 Revision of the U.S. Certificate of Live Birth.

3 Number of vaginal births after previous cesarean delivery per 100 live births to women with a previous cesarean delivery.

4 Excludes data for Puerto Rico.

NOTE: Excludes the 12 states for which method of delivery data are based on the 1989 Revision of the U.S. Certificate of Live Birth. Also excludes Massachusetts, Minnesota and Guam, which implemented the 2003 birth certificate revision in 2011, but after January 1st; see "Technical Notes." Northern Marianas does not report method of delivery.

Documentation Table 15. Method of delivery, by age and race and Hispanic origin of mother: Total of 36 reporting states and the District of Columbia, 2011

[Percentages are number of live births with specified method of delivery per 100 live births in specified group]

Method of delivery and race and Hispanic origin of mother	All births	Method reported	All ages 1	Under 20 years	20-24 years	25-29 years	30-34 years	35-39 years	40-54 years	Not stated 2
All races 3			Per 100							
Fetal presentation at birth										
Cephalic	3,267,934	3,005,138	94.2	95.3	95.0	94.5	93.7	92.6	90.9	76,849
Breech	3,267,934	116,337	3.6	2.4	2.8	3.5	4.2	5.0	6.3	76,849
Other	3,267,934	69,610	2.2	2.3	2.2	2.0	2.1	2.4	2.8	76,849
Final route and method of delivery										
Vaginal/Spontaneous	3,267,934	2,075,086	63.8	72.7	68.3	65.0	61.0	55.0	48.2	14,320
Vaginal/Forceps	3,267,934	21,552	0.7	0.8	0.7	0.7	0.6	0.5	0.6	14,320
Vaginal/Vacuum	3,267,934	93,452	2.9	4.2	3.1	2.8	2.6	2.3	2.2	14,320
Cesarean	3,267,934	1,063,524	32.7	22.3	28.0	31.5	35.8	42.1	49.0	14,320
<b>Cesarean/trial of labor attempted 4</b>	1,063,524	286,490	27.6	47.5	34.2	27.9	23.3	20.1	20.0	24,485
White 5										
Fetal presentation at birth										
Cephalic	1,713,700	1,593,027	94.3	95.5	95.3	94.6	93.8	92.8	91.2	23,952
Breech	1,713,700	68,473	4.1	3.0	3.1	3.8	4.5	5.2	6.5	23,952
Other	1,713,700	28,248	1.7	1.5	1.6	1.6	1.7	1.9	2.3	23,952
Final route and method of delivery										
Vaginal/Spontaneous	1,713,700	1,094,152	63.9	71.4	68.4	65.6	61.9	56.2	49.2	1,873
Vaginal/Forceps	1,713,700	13,848	0.8	1.1	0.9	0.9	0.7	0.7	0.6	1,873
Vaginal/Vacuum	1,713,700	53,604	3.1	5.1	3.6	3.1	2.7	2.4	2.3	1,873
Cesarean	1,713,700	550,223	32.1	22.4	27.2	30.4	34.7	40.8	47.9	1,873
<b>Cesarean/trial of labor attempted 4</b>	550,223	156,025	28.8	52.6	37.1	30.2	24.3	20.8	21.0	9,331
Black 5										
Fetal presentation at birth										
Cephalic	458,963	422,117	94.1	95.3	94.7	94.2	93.4	92.2	90.1	10,282
Breech	458,963	14,221	3.2	2.0	2.5	3.1	4.0	5.0	6.6	10,282
Other	458,963	12,343	2.8	2.7	2.8	2.7	2.6	2.8	3.3	10,282
Final route and method of delivery										
Vaginal/Spontaneous	458,963	283,391	61.8	71.1	65.5	61.2	56.6	50.8	44.3	501
Vaginal/Forceps	458,963	2,162	0.5	0.7	0.5	0.4	0.4	0.3	0.4	501
Vaginal/Vacuum	458,963	10,620	2.3	3.8	2.5	2.0	1.8	1.6	1.6	501
Cesarean	458,963	162,289	35.4	24.4	31.5	36.4	41.2	47.2	53.7	501
<b>Cesarean/trial of labor attempted 4</b>	162,289	48,785	31.5	51.2	36.3	28.6	25.4	23.7	22.8	7,449

Hispanic 6

Fetal presentation at birth											
Cephalic	802,401	729,918	94.0	94.9	94.7	94.3	93.4	92.2	90.9	25,756	
Breech	802,401	23,206	3.0	2.1	2.3	2.8	3.5	4.4	5.4	25,756	
Other	802,401	23,521	3.0	3.0	2.9	2.9	3.1	3.3	3.7	25,756	
Final route and method of delivery											
Vaginal/Spontaneous	802,401	521,591	65.1	74.7	69.7	65.5	60.7	54.4	48.8	1,158	
Vaginal/Forceps	802,401	3,345	0.4	0.6	0.5	0.4	0.4	0.3	0.4	1,158	
Vaginal/Vacuum	802,401	17,914	2.2	3.5	2.5	2.0	1.8	1.8	1.7	1,158	
Cesarean	802,401	258,393	32.2	21.2	27.4	32.1	37.1	43.4	49.2	1,158	
<b>Cesarean/trial of labor attempted 4</b>	258,393	56,172	22.2	38.4	27.2	20.7	18.1	16.7	17.0	5,808	

\* Figure does not meet standards of reliability or precision; based on fewer than 20 births in the numerator.

<sup>1</sup> Total number of births to residents of areas reporting the specified item.

<sup>2</sup> No response reported for characteristic of labor and delivery item; includes births to residents of states using the 2003 Standard Certificate of Live Birth occurring in states using the 1989 Standard Certificate of Live Birth (0.3 percent). See "Technical Notes".

<sup>3</sup> Includes other races not shown and origin not stated.

<sup>4</sup> Cesarean/trial of labor attempted is number of women who attempted a trial of labor prior to cesarean delivery per 100 cesarean births.

<sup>5</sup> Race and Hispanic origin are reported separately on the birth certificate. Race categories are consistent with the 1997 Office of Management and Budget standards; see "Technical Notes." Data by race are non-Hispanic and exclude mothers reporting multiple races.

<sup>6</sup> Includes all persons of Hispanic origin of any race.

NOTE: Includes California, Colorado, Delaware, District of Columbia, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Washington, Wisconsin, and Wyoming.



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Documentation Table 16. Time of birth, by day of week of birth and race and Hispanic origin of mother: Total of 36 reporting states and the District of Columbia, 2011

[Percents are number of live births with specified time of birth per 100 live births in specified group]

Time of birth and race and Hispanic origin of mother	All births	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
All races 1		Percent						
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
12:00am-5:59am	16.3	21.4	13.3	14.8	15.4	15.2	15.9	22.3
6:00am-11:59am	28.5	27.0	29.0	28.9	28.6	28.3	29.7	26.9
12:00pm-5:59pm	32.1	28.2	33.7	33.2	33.0	33.0	32.5	28.1
6:00pm-11:59pm	23.1	23.5	24.1	23.0	22.9	23.5	21.9	22.7
		Number						
Total 2	3,267,934	302,994	489,953	543,620	532,162	529,375	518,306	351,524
Not stated 3	12,671	1,071	1,973	2,242	2,073	2,047	1,961	1,304
White 4		Percent						
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
12:00am-5:59am	15.5	21.5	12.2	13.9	14.6	14.3	15.2	22.4
6:00am-11:59am	28.4	26.4	29.0	28.9	28.5	28.2	29.9	26.4
12:00pm-5:59pm	32.9	28.1	34.7	34.1	33.9	33.9	33.2	28.1
6:00pm-11:59pm	23.2	24.0	24.1	23.0	23.0	23.6	21.8	23.1
		Number						
Total 2	1,713,700	148,518	261,286	290,177	282,618	282,393	275,767	172,941
Not stated 3	1,499	170	232	253	247	238	194	165
Black 4		Percent						
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
12:00am-5:59am	17.4	21.7	14.6	15.9	16.6	16.5	17.0	22.6
6:00am-11:59am	27.9	26.6	28.3	28.4	28.2	27.9	28.6	26.9
12:00pm-5:59pm	31.4	28.2	33.0	32.4	32.2	31.8	32.0	27.9
6:00pm-11:59pm	23.3	23.6	24.2	23.3	23.1	23.8	22.4	22.6
		Number						
Total 2	458,963	44,822	66,810	75,391	74,702	73,108	71,447	52,683
Not stated 3	82	5	18	15	13	12	11	8
Hispanic 5		Percent						
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
12:00am-5:59am	16.9	21.0	14.3	15.5	16.2	15.9	16.6	21.9
6:00am-11:59am	29.1	28.1	29.4	29.4	29.3	28.8	30.2	27.9
12:00pm-5:59pm	31.3	28.3	32.5	32.4	31.9	32.3	31.8	28.2
6:00pm-11:59pm	22.6	22.6	23.9	22.7	22.7	23.0	21.5	22.0
		Number						
Total 2	802,401	79,596	118,371	130,992	128,760	127,410	125,425	91,847
Not stated 3	857	71	134	130	124	143	154	101

1 Includes other races not shown and origin not stated.

2 Total number of births to residents of areas reporting time of birth.

3 No response reported for time of birth; includes births to residents of states using the 2003 Standard Certificate of Live Birth occurring in states using the 1989 Standard Certificate of Live Birth (0.3 percent). See "Technical notes".

4 Race and Hispanic origin are reported separately on the birth certificate. Race categories are consistent with the 1997 Office of Management and Budget standards; see "Technical Notes." Data by race are non-Hispanic and exclude mothers reporting multiple races.

5 Includes all persons of Hispanic origin of any race.

NOTE: Includes California, Colorado, Delaware, District of Columbia, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Washington, Wisconsin, and Wyoming.

Documentation Table 17. Maternal morbidity, by age and race and Hispanic origin of mother: Total of 35 reporting states and the District of Columbia, 2011

[Rates are number of live births with specified morbidity per 100,000 live births in specified group]

Maternal morbidity and race and Hispanic origin of mother	All births 1	Condition reported	All ages	Under 20 years	20-24 years	25-29 years	30-34 years	35-39 years	40-54 years	Not stated 2
All races 3			per 100,000							
Maternal transfusion	3,256,677	8,774	271.6	288.3	264.7	250.7	254.8	314.8	455.4	26,485
Third or fourth degree perineal laceration	3,256,677	28,005	867.0	952.0	775.1	995.5	913.5	662.2	515.1	26,485
Ruptured uterus	3,256,677	847	26.2	15.5	21.4	26.0	29.2	35.9	36.3	26,485
Unplanned hysterectomy	3,256,677	1,209	37.4	9.4	16.1	29.7	45.6	72.0	162.1	26,485
Admission to intensive care unit	3,256,677	4,842	149.9	149.0	115.2	126.5	148.8	227.8	364.7	26,485
Unplanned operating room procedure following delivery	3,256,677	8,883	275.0	230.4	233.9	263.2	292.9	344.0	430.8	26,485
White 4										
Maternal transfusion	1,707,542	4,770	280.6	306.4	289.8	264.2	251.3	316.9	453.5	7,321
Third or fourth degree perineal laceration	1,707,542	17,812	1,047.6	1,121.9	953.2	1,240.3	1,061.8	763.7	594.7	7,321
Ruptured uterus	1,707,542	441	25.9	*	21.5	24.5	25.8	39.7	39.8	7,321
Unplanned hysterectomy	1,707,542	583	34.3	*	17.7	26.8	38.6	60.5	139.2	7,321
Admission to intensive care unit	1,707,542	1,919	112.9	106.7	95.6	91.3	107.3	177.0	266.5	7,321
Unplanned operating room procedure following delivery	1,707,542	5,533	325.4	282.2	276.8	317.2	331.0	412.6	447.5	7,321
Black 4										
Maternal transfusion	456,007	1,405	311.8	294.8	277.5	310.3	323.8	400.6	470.2	5,398
Third or fourth degree perineal laceration	456,007	2,270	503.8	822.8	510.7	419.0	447.8	400.6	276.6	5,398
Ruptured uterus	456,007	189	41.9	*	31.9	48.2	55.8	53.6	*	5,398
Unplanned hysterectomy	456,007	192	42.6	*	15.3	41.2	58.3	99.5	248.9	5,398
Admission to intensive care unit	456,007	1,020	226.4	189.5	151.3	202.5	295.2	382.8	608.5	5,398
Unplanned operating room procedure following delivery	456,007	1,452	322.2	273.7	289.3	299.8	356.0	456.7	534.7	5,398
Hispanic 5										
Maternal transfusion	800,985	1,807	226.3	248.7	204.6	193.9	231.6	282.6	401.2	2,370
Third or fourth degree perineal laceration	800,985	4,258	533.2	815.8	600.5	494.9	444.1	370.2	305.7	2,370
Ruptured uterus	800,985	155	19.4	*	15.6	18.1	28.1	28.0	*	2,370
Unplanned hysterectomy	800,985	302	37.8	*	13.2	31.1	56.9	84.1	157.6	2,370
Admission to intensive care unit	800,985	1,493	186.9	169.9	126.6	173.9	202.9	299.0	425.1	2,370
Unplanned operating room procedure following delivery	800,985	1,224	153.3	142.3	126.6	139.1	174.8	185.7	315.3	2,370

\* Figure does not meet standards of reliability or precision; based on fewer than 20 births in the numerator.

1 Total number of births to residents of areas reporting specified maternal morbidity.

2 No response reported for maternal morbidity item; includes births to residents of states using the 2003 Standard Certificate of Live Birth occurring in states using the 1989 Standard Certificate of Live Birth (0.3 percent). See "Technical Notes".

3 Includes other races not shown and origin not stated.

4 Race and Hispanic origin are reported separately on the birth certificate. Race categories are consistent with the 1997 Office of Management and Budget standards; see "Technical Notes." Data by race are non-Hispanic and exclude mothers reporting multiple races.

5 Includes all persons of Hispanic origin of any race.

NOTE: Includes California, Colorado, District of Columbia, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Washington, Wisconsin, and Wyoming.

Documentation Table 18. Abnormal conditions of the newborn, by age and race and Hispanic origin of mother: Total of 36 reporting states and the District of Columbia, 2011

[Rates are number of live births with specified condition per 1,000 live births in specified group]

Abnormal condition and race and Hispanic origin of mother	All births 1	Condition reported	All ages	Under 20 years	20-24 years	25-29 years	30-34 years	35-39 years	40-54 years	Not stated 2
All races 3			per 1,000							
Assisted ventilation required immediately following delivery 4	3,256,677	117,101	36.3	39.9	36.6	34.8	34.9	37.5	43.9	26,573
Assisted ventilation required for more than six hours 4	3,256,677	29,670	9.2	9.7	9.1	8.8	9.0	9.6	12.0	26,573
NICU admission	3,267,934	247,501	76.4	78.7	73.2	71.6	75.7	86.2	108.5	26,608
Surfactant replacement therapy given to newborn 4	3,256,677	12,883	4.0	4.0	4.0	3.9	3.9	4.2	5.1	26,573
Antibiotics received by newborn for suspected neonatal sepsis 4	3,256,677	65,455	20.3	24.2	21.4	19.6	18.8	19.4	21.5	26,573
Seizure or serious neurologic dysfunction 4	3,256,677	949	0.3	0.3	0.3	0.3	0.3	0.3	0.3	26,573
Significant birth injury 4	3,256,677	1,958	0.6	0.7	0.6	0.6	0.6	0.6	0.5	26,573
White 5										
Assisted ventilation required immediately following delivery 4	1,707,542	66,730	39.3	46.5	40.7	37.8	37.2	39.5	46.9	8,245
Assisted ventilation required for more than six hours 4	1,707,542	17,647	10.4	11.5	10.5	10.1	10.1	10.4	13.1	8,245
NICU admission	1,713,700	124,105	72.8	73.2	69.5	69.2	71.9	81.8	103.3	8,245
Surfactant replacement therapy given to newborn 4	1,707,542	8,007	4.7	4.9	4.8	4.7	4.5	4.6	5.8	8,245
Antibiotics received by newborn for suspected neonatal sepsis 4	1,707,542	36,974	21.8	26.2	23.8	21.2	20.2	20.6	23.1	8,245
Seizure or serious neurologic dysfunction 4	1,707,542	602	0.4	0.6	0.4	0.3	0.3	0.3	*	8,245
Significant birth injury 4	1,707,542	1,099	0.6	0.9	0.7	0.7	0.6	0.7	0.5	8,245
Black 5										
Assisted ventilation required immediately following delivery 4	456,007	19,950	44.2	44.1	41.1	42.9	47.0	50.4	57.3	4,770
Assisted ventilation required for more than six hours 4	456,007	5,293	11.7	11.5	10.9	11.3	12.4	13.5	16.0	4,770
NICU admission	458,963	47,421	104.4	99.2	96.4	99.1	113.3	127.3	147.9	4,770
Surfactant replacement therapy given to newborn 4	456,007	2,368	5.2	5.2	5.0	4.9	5.3	6.5	7.4	4,770
Antibiotics received by newborn for suspected neonatal sepsis 4	456,007	10,362	23.0	26.9	22.7	21.4	21.9	23.8	25.3	4,770
Seizure or serious neurologic dysfunction 4	456,007	148	0.3	*	0.4	0.3	*	0.5	*	4,770
Significant birth injury 4	456,007	212	0.5	0.6	0.5	0.4	0.4	*	-	4,770
Hispanic 6										
Assisted ventilation required immediately following delivery 4	800,985	22,168	27.7	29.7	27.1	25.3	27.2	32.5	35.9	2,120
Assisted ventilation required for more than six hours 4	800,985	4,749	5.9	6.5	5.7	5.1	5.8	7.5	9.1	2,120
NICU admission	802,401	54,952	68.7	71.4	63.4	62.6	70.5	82.1	101.3	2,122
Surfactant replacement therapy given to newborn 4	800,985	1,752	2.2	2.4	2.1	1.8	2.1	3.0	3.8	2,120
Antibiotics received by newborn for suspected neonatal sepsis 4	800,985	12,750	16.0	20.2	16.5	14.8	14.1	16.2	17.0	2,120
Seizure or serious neurologic dysfunction 4	800,985	133	0.2	*	0.2	0.2	0.1	*	*	2,120
Significant birth injury 4	800,985	413	0.5	0.5	0.5	0.6	0.5	0.6	*	2,120

\* Figure does not meet standards of reliability or precision; based on fewer than 20 births in the numerator.

- Quantity zero.

1 Total number of births to residents of areas reporting specified abnormal condition.

2 No response reported for characteristic of labor and delivery item; includes births to residents of states using the 2003 Standard Certificate of Live Birth occurring in states using the 1989 Standard Certificate of Live Birth (0.3 percent). See "Technical Notes".

3 Includes other races not shown and origin not stated.

4 Excludes data for Delaware (see "Technical Notes").

5 Race and Hispanic origin are reported separately on the birth certificate. Race categories are consistent with the 1997 Office of Management and Budget standards; see "Technical Notes." Data by race are non-Hispanic and exclude mothers reporting multiple races.

6 Includes all persons of Hispanic origin of any race.

NOTE: Includes California, Colorado, Delaware, District of Columbia, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Washington, Wisconsin, and Wyoming.

Documentation Table 19. Congenital anomalies of the newborn, by age of mother: Total of 36 reporting states and the District of Columbia, 2011

[Rates are number of live births with specified anomalies per 100,000 live births in specified group]

Congenital anomaly	All births <sup>1</sup>	Congenital anomalies reported	All ages	Under 20 years	20-24 years	25-29 years	30-34 years	35-39 years	40-54 years	Not stated <sup>2</sup>	Per 100,000	
											Total	
Anencephaly	3,267,934	312	9.7	14.0	10.1	9.6	9.2	8.3	*		36,723	
Menigomyelocele/spina bifida	3,267,934	478	14.8	17.6	15.1	14.7	13.2	14.7	*		36,723	
Cyanotic congenital heart disease	3,267,934	2,056	63.6	54.3	61.6	60.7	65.1	72.3	90.7		36,723	
Congenital diaphragmatic hernia <sup>3</sup>	3,215,662	382	12.0	9.2	12.7	10.6	12.7	12.4	21.5		35,868	
Omphalocele	3,267,934	311	9.6	10.8	9.7	9.3	6.4	14.2	*		36,723	
Gastroschisis	3,267,934	966	29.9	99.3	55.8	18.7	8.3	*	*		36,723	
Limb reduction defect	3,267,934	413	12.8	11.9	16.4	12.2	10.8	10.7	*		36,723	
Cleft lip with or without cleft palate	3,267,934	1,601	49.5	55.0	54.2	48.7	45.8	44.7	55.5		36,723	
Cleft palate alone	3,267,934	699	21.6	15.1	21.7	24.5	20.3	21.1	24.6		36,723	
Down syndrome	3,267,934	1,565	48.4	29.9	22.8	29.4	39.5	104.7	352.3		36,723	
Suspected chromosomal disorder	3,267,934	1,295	40.1	28.8	32.4	32.3	37.9	61.3	147.3		36,723	
Hypospadias <sup>4</sup>	3,267,934	1,801	55.7	50.7	52.8	62.2	53.4	55.1	53.4		36,723	
Males only <sup>5</sup>	1,672,677	1,801	108.9	99.1	103.1	121.5	104.4	107.7	104.1		19,015	

\* Figure does not meet standards of reliability or precision; based on fewer than 20 births in the numerator.

<sup>1</sup> Total number of births to residents of areas reporting specified congenital anomaly.

<sup>2</sup> No response reported for congenital anomaly of the newborn item; includes births to residents of states using the 2003 Standard Certificate of Live Birth occurring in states using the 1989 Standard Certificate of Live Birth (0.3 percent). See "Technical Notes".

<sup>3</sup> Excludes data for Oklahoma (see "Technical Notes").

<sup>4</sup> Denominator includes both male and female births.

<sup>5</sup> Denominator includes male births only.

NOTE: Includes California, Colorado, Delaware, District of Columbia, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Washington, Wisconsin, and Wyoming.