

**User Guide
to the
2017 Natality
Public Use File**



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Control Count of Records
2017 Natality
File / Data Characteristics

All Files:

Record format: Fixed Format

Code scheme: Numeric/Alphabetic/Blank

Record length: 1330

All Births:

	<u>United States</u>	<u>Territories</u>
Record count	3,864,754	29,851
By occurrence	3,864,754	29,851
By residence	3,855,500	28,957
To foreign residents	9254	894

2017 Natality Public Use File Documentation

Position

Length Field

Description

Values Definition

Data from non-reporting areas for an item are represented by Blanks (“not on certificate”) that are not otherwise indicated in the Values and Definitions.

Position	Length	Field	Description	Values	Definition
1-8	6	FILLER	Filler	Blank	
9-12	4	DOB_YY	Birth Year	2017	Year of birth
13-14	2	DOB_MM	Birth Month	01 02 03 04 05 06 07 08 09 10 11 12	January February March April May June July August September October November December
15-18	4	FILLER	Filler	Blank	
19-22	4	DOB_TT	Time of Birth	0000-2359 9999	Time of Birth Not Stated
23	1	DOB_WK	Birth Day of Week	1 2 3 4 5 6 7	Sunday Monday Tuesday Wednesday Thursday Friday Saturday
24-31	8	FILLER	Filler	Blank	
32	1	BFACIL	Birth Place	1 2 3 4 5 6 7 9	Hospital Freestanding Birth Center Home (intended) Home (not intended) Home (unknown if intended) Clinic / Doctor's Office Other Unknown
33	1	F_FACILITY	Reporting Flag for Birth Place	0 1	Non-Reporting Reporting
34-49	16	FILLER	Filler	Blank	

Data from non-reporting areas for an item are represented by Blanks (“not on certificate”) that are not otherwise indicated in the Values and Definitions.

Position	Length	Field	Description	Values	Definition
50	1	BFACIL3	Facility Recode	1 2 3	In Hospital Not in Hospital Unknown or Not Stated
51-72	22	FILLER_B	Filler	Blank	

73	1	MAGE_IMPFLG	Mother's Age Imputed Due to missing data, age imputed.	Blank 1	Age not imputed Age imputed
74	1	MAGE_REPFLG	Reported Age of Mother Used Flag Due to missing date of birth, reported age used.	Blank 1	Reported age not used Reported age used
75-76	2	MAGER	Mother's Single Years of Age	12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43	10 – 12 years 13 years 14 years 15 years 16 years 17 years 18 years 19 years 20 years 21 years 22 years 23 years 24 years 25 years 26 years 27 years 28 years 29 years 30 years 31 years 32 years 33 years 34 years 35 years 36 years 37 years 38 years 39 years 40 years 41 years 42 years 43 years

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Position	Length	Field	Description	Values	Definition
				44	44 years
				45	45 years
				46	46 years
				47	47 years
				48	48 years
				49	49 years
				50	50 years and over
77-78	2	MAGER14	Mother's Age Recode 14	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
79	1	MAGER9	Mother's Age Recode 9	1	Under 15 years
				2	15-19 years
				3	20-24 years
				4	25-29 years
				5	30-34 years
				6	35-39 years
				7	40-44 years
				8	45-49 years
				9	50-54 years
80-83	4	FILLER	Filler	Blank	
84	1	MBSTATE_REC	Mother's Nativity	1	Born in the U.S. (50 US States)
				2	Born outside the U.S. (includes possessions)
				3	Unknown or Not Stated
85-103	19	FILLER	Filler	Blank	
104	1	RESTATUS	Residence Status <u>United States</u>	1	RESIDENT: State and county of occurrence and residence are the same.
				2	INTRASTATE NONRESIDENT: State of occurrence and residence are the same but county is different.

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Position	Length	Field	Description	Values	Definition
				3	INTERSTATE NONRESIDENT: State of occurrence and residence are different but both are one of the 50 US states or District of Columbia.
				4	FOREIGN RESIDENT: The state of residence is not one of the 50 US states or District of Columbia.
			<u>U.S. Territories</u> For detailed geography codes see addendum.	1	RESIDENT: State and county of occurrence and residence are the same. (Unique to Guam, all US residents are considered residents of Guam and thus are assigned 1.)
				2	INTRATERRITORY NONRESIDENT: Territory of occurrence and residence are the same but county is different.
				3	INTERTERRITORY RESIDENT: Territory of occurrence and residence are different but both are US Territories.
				4	FOREIGN RESIDENT: The residence is not a US Territory.
105-106	2	MRACE31	Mother's Race Recode 31 <u>United States and all Outlying Areas of the United States except Puerto Rico</u>	01	White (only) [only one race reported]
				02	Black (only)
				03	AIAN (American Indian or Alaskan Native) (only)
				04	Asian (only)
				05	NHOPI (Native Hawaiian or Other Pacific Islander) (only)
				06	Black and White
				07	Black and AIAN
				08	Black and Asian
				09	Black and NHOPI
				10	AIAN and White
				11	AIAN and Asian
				12	AIAN and NHOPI
				13	Asian and White
				14	Asian and NHOPI
				15	NHOPI and White
				16	Black, AIAN, and White
				17	Black, AIAN, and Asian
				18	Black, AIAN, and NHOPI
				19	Black, Asian, and White
				20	Black, Asian, and NHOPI
				21	Black, NHOPI, and White
				22	AIAN, Asian, and White
				23	AIAN, NHOPI, and White
				24	AIAN, Asian, and NHOPI
				25	Asian, NHOPI, and White
				26	Black, AIAN, Asian, and White
				27	Black, AIAN, Asian, and NHOPI
				28	Black, AIAN, NHOPI, and White
				29	Black, Asian, NHOPI, and White
				30	AIAN, Asian, NHOPI, and White

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Position	Length	Field	Description	Values	Definition
				31	Black, AIAN, Asian, NHOPI, and White
107	2	MRACE6	Mother's Race Recode 6 <u>United States and all Outlying Areas of the United States except Puerto Rico</u>	1 2 3 4 5 6	White (only) Black (only) AIAN (only) Asian (only) NHOPI (only) More than one race
108-109	2	MRACE15	Mother's Race Recode 15 <u>United States and all Outlying Areas of the United States except Puerto Rico</u>	01 02 03 04 05 06 07 08 09 10 11 12 13 14 15	White (only) Black (only) AIAN (only) Asian Indian (only) Chinese (only) Filipino (only) Japanese (only) Korean (only) Vietnamese (only) Other Asian (only) Hawaiian (only) Guamanian (only) Samoan (only) Other Pacific Islander (only) More than one race
110	1	MBRACE	Bridged Race Mother 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>Puerto Rico</u>	1 2 3 4 1 2 0	White Black American Indian or Alaskan Native Asian or Pacific Islander White Black Other (not classified as White or Black)
111	1	MRACEIMP	Mother's Race Imputed Flag	Blank 1 2	Mother's race not imputed Unknown race imputed All other races, formerly coded 09, imputed.
112-114	3	FILLER	Filler	Blank	

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Position	Length	Field	Description	Values	Definition
115	1	MHISP_R	Mother's Hispanic Origin Recode	0 1 2 3 4 5 9	Non-Hispanic Mexican Puerto Rican Cuban Central and South American Other and Unknown Hispanic origin Hispanic origin not stated
116	1	F_MHISP	Reporting Flag for Mother's Origin	0 1	Non-Reporting Reporting
117	1	MRACEHISP	Mother's Race/Hispanic Origin Based on single/multiple-race (fields 105-106, 107, and 108-109); for coding to create bridged-race categories (field 110) see "Coding for bridge-race and Hispanic origin categories" in the Detailed Technical Notes.	1 2 3 4 5 6 7 8	Non-Hispanic White (only) Non-Hispanic Black (only) Non-Hispanic AIAN (only) Non-Hispanic Asian (only) Non-Hispanic NHOPI (only) Non-Hispanic more than one race Hispanic Origin unknown or not stated
118	1	FILLER	Filler	Blank	
119	1	MAR_P	Paternity Acknowledged	Y N U X	Yes No Unknown Not Applicable
120	1	DMAR	Marital Status <u>United States and all Outlying Areas of the United States except Puerto Rico</u> <u>Puerto Rico</u>	1 2 1 2 3 9	Married Unmarried Yes Unmarried parents living together Unmarried parents not living together Unknown or not stated
121	1	MAR_IMP	Mother's Marital Status Imputed	Blank 1	Marital Status not imputed Marital Status imputed
122	1	FILLER	Filler	Blank	
123	1	F_MAR_P	Reporting Flag for Paternity Acknowledged	0 1	Non-Reporting Reporting

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Position	Length	Field	Description	Values	Definition
124	1	MEDUC	Mother's Education	1 2 3 4 5 6 7 8 9	8 th grade or less 9 th through 12 th grade with no diploma High school graduate or GED completed Some college credit, but not a degree. Associate degree (AA,AS) Bachelor's degree (BA, AB, BS) Master's degree (MA, MS, MEng, MEd, MSW, MBA) Doctorate (PhD, EdD) or Professional Degree (MD, DDS, DVM, LLB, JD) Unknown
125	1	FILLER	Filler	Blank	
126	1	F_MEDUC	Reporting Flag for Education of Mother	0 1	Non-Reporting Reporting
127-141	15	FILLER_M	Filler M	Blank	

142	1	FAGERPT_FLG	Father's Reported Age Used	Blank 1	Father's reported age not used Father's reported age used
143-146	4	FILLER	Filler	Blank	
147-148	2	FAGECOMB	Father's Combined Age	09-98 99	Father's combined age in years Unknown or not stated
149-150	2	FAGEREC11	Father's Age Recode 11	01 02 03 04 05 06 07 08 09 10 11	Under 15 years 15-19 years 20-24 years 25-29 years 30-34 years 35-39 years 40-44 years 45-49 years 50-54 years 55-98 years Not stated
151-152	2	FRACE31	Father's Race Recode 31	01 02 03 04 05 06	White (only) [only one race reported] Black (only) AIAN (American Indian or Alaskan Native) (only) Asian (only) NHOPI (Native Hawaiian or Other Pacific Islander) (only) Black and White

Data from non-reporting areas for an item are represented by Blanks ("not on certificate") that are not otherwise indicated in the Values and Definitions.

Position	Length	Field	Description	Values	Definition
				07	Black and AIAN
				08	Black and Asian
				09	Black and NHOPI
				10	AIAN and White
				11	AIAN and Asian
				12	AIAN and NHOPI
				13	Asian and White
				14	Asian and NHOPI
				15	NHOPI and White
				16	Black, AIAN, and White
				17	Black, AIAN, and Asian
				18	Black, AIAN, and NHOPI
				19	Black, Asian, and White
				20	Black, Asian, and NHOPI
				21	Black, NHOPI, and White
				22	AIAN, Asian, and White
				23	AIAN, NHOPI, and White
				24	AIAN, Asian, and NHOPI
				25	Asian, NHOPI, and White
				26	Black, AIAN, Asian, and White
				27	Black, AIAN, Asian, and NHOPI
				28	Black, AIAN, NHOPI, and White
				29	Black, Asian, NHOPI, and White
				30	AIAN, Asian, NHOPI, and White
				31	Black, AIAN, Asian, NHOPI, and White
				99	Unknown or Not Stated
153	1	FRACE6	Father's Race Recode 6	1	White (only)
				2	Black (only)
				3	AIAN (only)
				4	Asian (only)
				5	NHOPI (only)
				6	More than one race
				9	Unknown or Not Stated
154-155	2	FRACE15	Father's Race Recode 15	01	White (only)
				02	Black (only)
				03	AIAN (only)
				04	Asian Indian (only)
				05	Chinese (only)
				06	Filipino (only)
				07	Japanese (only)
				08	Korean (only)
				09	Vietnamese (only)
				10	Other Asian (only)
				11	Hawaiian (only)

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Position	Length	Field	Description	Values	Definition
				12	Guamanian (only)
				13	Samoan (only)
				14	Other Pacific Islander (only)
				15	More than one race
				99	Unknown or Not Stated
156-159	4	FILLER	Filler		
160	1	FHISP_R	Father's Hispanic Origin Recode	0	Non-Hispanic
				1	Mexican
				2	Puerto Rican
				3	Cuban
				4	Central and South American
				5	Other and Unknown Hispanic origin
				9	Hispanic origin not stated
161	1	F_FHISP	Reporting Flag for Father's Origin	0	Non-Reporting
				1	Reporting
162	1	FRACEHISP	Father's Race/Hispanic Origin Based on single/multiple-race (fields 151-152, 153, and 154-155).	1	Non-Hispanic White (only)
				2	Non-Hispanic Black (only)
				3	Non-Hispanic AIAN (only)
				4	Non-Hispanic Asian (only)
				5	Non-Hispanic NHOPI (only)
				6	Non-Hispanic more than one race
				7	Hispanic
				8	Origin unknown or not stated
				9	Race unknown or not stated (Non-Hispanic)
163	1	FEDUC	Father's Education Use reporting flag in field 165	1	8 th grade or less
				2	9 th through 12 th grade with no diploma
				3	High school graduate or GED completed
				4	Some college credit, but not a degree.
				5	Associate degree (AA,AS)
				6	Bachelor's degree (BA, AB, BS)
				7	Master's degree (MA, MS, MEng, MEd, MSW, MBA)
				8	Doctorate (PhD, EdD) or Professional Degree (MD, DDS, DVM, LLB, JD)
				9	Unknown
164	1	FILLER	Filler	Blank	
165	1	F_FEDUC	Reporting Flag for Education of Father	0	Non-Reporting
				1	Reporting
166-170	5	FILLER_F	Filler	Blank	

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Position	Length	Field	Description	Values	Definition
171-172	2	PRIORLIVE	Prior Births Now Living	00-30 99	Number of children still living from previous live births. Unknown or not stated
173-174	2	PRIORDEAD	Prior Births Now Dead	00-30 99	Number of children dead from previous live births. Unknown or not stated
175-176	2	PRIORTERM	Prior Other Terminations	00-30 99	Number other terminations Unknown or not stated
177-178	2	FILLER	Filler	Blank	
179	1	LBO_REC	Live Birth Order Recode	1-7 8 9	Number of live birth order. 8 or more live births Unknown or not stated
180-181	2	FILLER	Filler	Blank	
182	1	TBO_REC	Total Birth Order Recode	1-7 8 9	Number of total birth order. 8 or more total births Unknown or not stated
183-197	15	FILLER	Filler	Blank	
198-200	3	ILLB_R	Interval Since Last Live Birth Recode Use reporting flag in field 126	000-003 004-300 888 999	Plural delivery Months since last live birth Not applicable / 1 st live birth Unknown or not stated
201-202	2	ILLB_R11	Interval Since Last Live Birth Recode 11 Use reporting flag in field 126	00 01 02 03 04 05 06 07 08 88 99	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 Not applicable (1 st live birth) Unknown or not stated
203-205	3	FILLER	Filler	Blank	
206-208	3	ILOP_R	Interval Since Last Other Pregnancy Recode	000-003	Plural delivery

Data from non-reporting areas for an item are represented by Blanks (“not on certificate”) that are not otherwise indicated in the Values and Definitions.

Position	Length	Field	Description	Values	Definition
			Use reporting flag in field 126	004-300 888 999	Months since last live birth Not applicable / 1 st natality event Unknown or not stated
209-210	2	ILOP_R11	Interval Since Last Other Pregnancy Recode 11 Use reporting flag in field 126	00 01 02 03 04 05 06 07 08 88 99	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 Not applicable (1 st natality event) Unknown or not stated
211-213	3	FILLER	Filler	Blank	
214-216	3	ILP_R	Interval Since Last Pregnancy Recode Use reporting flag in field 126	000-003 004-300 888 999	Plural delivery Months since last live birth Not applicable / no previous pregnancy Unknown or not stated
217-218	2	ILP_R11	Interval Since Last Pregnancy Recode 11 Use reporting flag in field 126	00 01 00 01 02 03 04 05 06 88 99	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 Not applicable (no previous pregnancy) Unknown or not stated
219-223	5	FILLER_P		Blank	

224-225	2	PRECARE	Month Prenatal Care Began	00 01-10 99	No prenatal care Month prenatal care began Unknown or not stated
226	1	F_MPCB	Reporting Flag for Month Prenatal Care Began	0 1	Non-Reporting Reporting

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Position	Length	Field	Description	Values	Definition
227	1	PRECARE5	Month Prenatal Care Began Recode	1 2 3 4 5	1 st to 3 rd month 4 th to 6 th month 7 th to final month No prenatal care Unknown or not stated
228-237	10	FILLER	Filler	Blank	
238-239	2	PREVIS	Number of Prenatal Visits	00-98 99	Number of prenatal visits Unknown or not stated
240-241	2	FILLER	Filler	Blank	
242-243	2	PREVIS_REC	Number of Prenatal Visits Recode	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
244	1	F_TPCV	Reporting Flag for Total Prenatal Care Visits	0 1	Non-Reporting Reporting
245-250	6	FILLER	Filler	Blank	

251	1	WIC	WIC	Y N U	Yes No Unknown or not stated
252	1	F_WIC	Reporting Flag for WIC	0 1	Non-Reporting Reporting
253-254	2	CIG_0	Cigarettes Before Pregnancy	00-97 98 99	Number of cigarettes daily 98 or more cigarettes daily Unknown or not stated
255-256	2	CIG_1	Cigarettes 1st Trimester	00-97 98	Number of cigarettes daily 98 or more cigarettes daily

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Position	Length	Field	Description	Values	Definition
				99	Unknown or not stated
257-258	2	CIG_2	Cigarettes 2nd Trimester	00-97 98 99	Number of cigarettes daily 98 or more cigarettes daily Unknown or not stated
259-260	2	CIG_3	Cigarettes 3rd Trimester	00-97 98 99	Number of cigarettes daily 98 or more cigarettes daily Unknown or not stated
261	1	CIG0_R	Cigarettes Before Pregnancy Recode	0 1 2 3 4 5 6	Nonsmoker 1-5 6-10 11-20 21-40 41 or more Unknown or not stated
262	1	CIG1_R	Cigarettes 1st Trimester Recode	0 1 2 3 4 5 6	Nonsmoker 1-5 6-10 11-20 21-40 41 or more Unknown or not stated
263	1	CIG2_R	Cigarettes 2nd Trimester Recode	0 1 2 3 4 5 6	Nonsmoker 1-5 6-10 11-20 21-40 41 or more Unknown or not stated
264	1	CIG3_R	Cigarettes 3rd Trimester Recode	0 1 2 3 4 5 6	Nonsmoker 1-5 6-10 11-20 21-40 41 or more Unknown or not stated
265	1	F_CIGS_0	Reporting Flag for Cigarettes before Pregnancy	0 1	Non-Reporting Reporting
266	1	F_CIGS_1	Reporting Flag for Cigarettes 1st Trimester	0	Non-Reporting

Data from non-reporting areas for an item are represented by Blanks (“not on certificate”) that are not otherwise indicated in the Values and Definitions.

Position	Length	Field	Description	Values	Definition
				1	Reporting
267	1	F_CIGS_2	Reporting Flag for Cigarettes 2nd Trimester	0 1	Non-Reporting Reporting
268	1	F_CIGS_3	Reporting Flag for Cigarettes 3rd Trimester	0 1	Non-Reporting Reporting
269	1	CIG_REC	Cigarette Recode	Y N U	Yes No Unknown or not stated
270	1	F_TOBACO	Reporting Flag for Tobacco use	0 1	Non-Reporting Reporting
271-279	9	FILLER_R	Filler	Blank	

280-281	2	M_Ht_In	Mother's Height in Total Inches	30-78 99	Height in inches Unknown or not stated
282	1	F_M_HT	Reporting Flag for Mother's Height	0 1	Non-Reporting Reporting
283-286	4	BMI	Body Mass Index Use reporting flag in field 282	13.0-69.9 99.9	Body Mass Index Unknown or not stated
287	1	BMI_R	Body Mass Index Recode Use reporting flag in field 282	1 2 3 4 5 6 9	Underweight <18.5 Normal 18.5-24.9 Overweight 25.0-29.9 Obesity I 35.0-34.9 Obesity II 35.0-39.9 Extreme Obesity III ≥ 40.0 Unknown or not stated
288-291	4	FILLER	Filler	Blank	
292-294	3	PWgt_R	Pre-pregnancy Weight Recode	075-375 999	Weight in pounds Unknown or not stated
295	1	F_PWGT	Reporting Flag for Pre-pregnancy Weight	0 1	Non-Reporting Reporting
296-298	3	FILLER	Filler	Blank	

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Position	Length	Field	Description	Values	Definition
299-301	3	DWgt_R	Delivery Weight Recode	100-400 999	Weight in pounds Unknown or not stated
302	1	FILLER	Filler	Blank	
303	1	F_DWGT	Reporting Flag for Delivery Weight	0 1	Non-Reporting Reporting
304-305	2	WTGAIN	Weight Gain	00-97 98 99	Weight gain in pounds 98 pounds and over Unknown or not stated
306	1	WTGAIN_REC	Weight Gain Recode	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
307	1	F_WTGAIN	Reporting Flag for Weight Gain	0 1	Non-Reporting Reporting
308-312	5	FILLER_W	Filler	Blank	

313-342	30	<u>Risk Factors</u>			
313	1	RF_PDIAB	Pre-pregnancy Diabetes	Y N U	Yes No Unknown or not stated
314	1	RF_GDIAB	Gestational Diabetes	Y N U	Yes No Unknown or not stated
315	1	RF_PHYPE	Pre-pregnancy Hypertension	Y N U	Yes No Unknown or not stated
316	1	RF_GHYPE	Gestational Hypertension	Y N U	Yes No Unknown or not stated
317	1	RF_EHYPE	Hypertension Eclampsia	Y	Yes

Data from non-reporting areas for an item are represented by Blanks (“not on certificate”) that are not otherwise indicated in the Values and Definitions.

Position	Length	Field	Description	Values	Definition
				N	No
				U	Unknown or not stated
318	1	RF_PPTERM	Previous Preterm Birth	Y	Yes
				N	No
				U	Unknown or not stated
319	1	F_RF_PDIAB	Reporting Flag for Pre-pregnancy Diabetes	0	Non-Reporting
				1	Reporting
320	1	F_RF_GDIAB	Reporting Flag for Gestational Diabetes	0	Non-Reporting
				1	Reporting
321	1	F_RF_PHYPER	Reporting Flag for Pre-pregnancy Hypertension	0	Non-Reporting
				1	Reporting
322	1	F_RF_GHYPER	Reporting Flag for Gestational Hypertension	0	Non-Reporting
				1	Reporting
323	1	F_RF_ECLAMP	Reporting Flag for Hypertension Eclampsia	0	Non-Reporting
				1	Reporting
324	1	F_RF_PPB	Reporting Flag for Previous Preterm Birth	0	Non-Reporting
				1	Reporting
325	1	RF_INFTR	Infertility Treatment Used	Y	Yes
				N	No
				U	Unknown or not stated
326	1	RF_FEDRG	Fertility Enhancing Drugs	Y	Yes
				N	No
				X	Not applicable
				U	Unknown or not stated
327	1	RF_ARTEC	Asst. Reproductive Technology	Y	Yes
				N	No
				X	Not applicable
				U	Unknown or not stated
328	1	f_RF_INFTR	Reporting Flag for Infertility Treatment	0	Non-Reporting
				1	Reporting
329	1	F_RF_INF_DRG	Reporting Flag for Fertility Enhance Drugs	0	Non-Reporting
				1	Reporting
330	1	F_RF_INF_ART	Reporting Flag for Reproductive Technology	0	Non-Reporting

Data from non-reporting areas for an item are represented by Blanks (“not on certificate”) that are not otherwise indicated in the Values and Definitions.

Position	Length	Field	Description	Values	Definition
				1	Reporting
331	1	RF_CESAR	Previous Cesarean	Y N U	Yes No Unknown or not stated
332-333	2	RF_CESARN	Number of Previous Cesareans	00 01-30 99	None Number of previous cesareans Unknown or not stated
334	1	FILLER	Filler	Blank	
335	1	F_RF_CESAR	Reporting Flag for Previous Cesarean	0 1	Non-Reporting Reporting
336	1	F_RF_NCESAR	Reporting Flag for Number of Previous Cesareans	0 1	Non-Reporting Reporting
337	1	NO_RISKS	No Risk Factors Reported	1 0 9	True False Not Reported
338-342	5	FILLER_RF	Filler	Blank	

343-358	15	<u>Infections Present</u>			
343	1	IP_GON	Gonorrhea	Y N U	Yes No Unknown or not stated
344	1	IP_SYPH	Syphilis	Y N U	Yes No Unknown or not stated
345	1	IP_CHLAM	Chlamydia	Y N U	Yes No Unknown or not stated
346	1	IP_HEPB	Hepatitis B	Y N U	Yes No Unknown or not stated
347	1	IP_HEPC	Hepatitis C	Y N	Yes No

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Position	Length	Field	Description	Values	Definition
				U	Unknown or not stated
348	1	F_IP_GONOR	Reporting Flag for Gonorrhea	0 1	Non-Reporting Reporting
349	1	F_IP_SYPH	Reporting Flag for Syphilis	0 1	Non-Reporting Reporting
350	1	F_IP_CHLAM	Reporting Flag for Chlamydia	0 1	Non-Reporting Reporting
351	1	F_IP_HEPATB	Reporting Flag for Hepatitis B	0 1	Non-Reporting Reporting
352	1	F_IP_HEPATC	Reporting Flag for Hepatitis C	0 1	Non-Reporting Reporting
353	1	NO_INFEC	No Infections Reported	1 0 9	True False Not Reported
354-358	5	FILLER_IP	Filler_IP	Blank	

359-370	12	<u>Obstetric Procedures</u>			
359	1	FILLER	Filler	Blank	
360	1	OB_ECVS	Successful External Cephalic Version	Y N U	Yes No Unknown or not stated
361	1	OB_ECVF	Failed External Cephalic Version	Y N U	Yes No Unknown or not stated
362	1	FILLER	Filler	Blank	
363	1	F_OB_SUCC	Reporting Flag for Successful External Cephalic Version	0 1	Non-Reporting Reporting
364	1	F_OB_FAIL	Reporting Flag for Failed External Cephalic Version	0 1	Non-Reporting Reporting
365-382	17	FILLER_OB	Filler_OB	Blank	

Data from non-reporting areas for an item are represented by Blanks (“not on certificate”) that are not otherwise indicated in the Values and Definitions.

Position	Length	Field	Description	Values	Definition	
383-400	18	<u>Characteristics of Labor and Delivery</u>				
383	1	LD_INDL	Induction of Labor	Y N U	Yes No Unknown or not stated	
384	1	LD_AUGM	Augmentation of Labor	Y N U	Yes No Unknown or not stated	
385	1	LD_STER	Steroids	Y N U	Yes No Unknown or not stated	
386	1	LD_ANTB	Antibiotics	Y N U	Yes No Unknown or not stated	
387	1	LD_CHOR	Chorioamnionitis	Y N U	Yes No Unknown or not stated	
388	1	LD_ANES	Anesthesia	Y N U	Yes No Unknown or not stated	
389	1	F_LD_INDL	Reporting Flag for Induction of Labor	0 1	Non-Reporting Reporting	
390	1	F_LD_AUGM	Reporting Flag for Augmentation of Labor	0 1	Non-Reporting Reporting	
391	1	F_LD_STER	Reporting Flag for Steroids	0 1	Non-Reporting Reporting	
392	1	F_LD_ANTB	Reporting Flag for Antibiotics	0 1	Non-Reporting Reporting	
393	1	F_LD_CHOR	Reporting Flag for Chorioamnionitis	0 1	Non-Reporting Reporting	
394	1	F_LD_ANES	Reporting Flag for Anesthesia	0 1	Non-Reporting Reporting	

Data from non-reporting areas for an item are represented by Blanks (“not on certificate”) that are not otherwise indicated in the Values and Definitions.

Position	Length	Field	Description	Values	Definition
395	1	NO_LBRDLV	No Characteristics of Labor Reported	1 0 9	True False Not Reported
396-400	5	FILLER_LD	Filler	Blank	

401-414	14	<u>Method of Delivery</u>			
401	1	ME_PRES	Fetal Presentation at Delivery	1 2 3 9	Cephalic Breech Other Unknown or not stated
402	1	ME_ROUT	Final Route & Method of Delivery	1 2 3 4 9	Spontaneous Forceps Vacuum Cesarean Unknown or not stated
403	1	ME_TRIAL	Trial of Labor Attempted (if cesarean)	Y N X U	Yes No Not applicable Unknown or not stated
404	1	F_ME_PRES	Reporting Flag for Fetal Presentation	0 1	Non-Reporting Reporting
405	1	F_ME_ROUT	Reporting Flag for Final Route and Method of Deliver	0 1	Non-Reporting Reporting
406	1	F_ME_TRIAL	Reporting Flag for Trial of Labor Attempted	0 1	Non-Reporting Reporting
407	1	RDMETH_REC	Delivery Method Recode	1 2 3 4 5 6 9	Vaginal (excludes vaginal after previous C-section) Vaginal after previous c-section Primary C-section Repeat C-section Vaginal (unknown if previous c-section) C-section (unknown if previous c-section) Not stated
408	1	DMETH_REC	Delivery Method Recode	1 2	Vaginal C-Section

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Position	Length	Field	Description	Values	Definition
				9	Unknown
409	1	F_DMETH_REC	Reporting Flag for Method of Delivery Recode	0 1	Non-Reporting Reporting
410-414	5	FILLER_ME	Filler	Blank	

415-432	18	<u>Maternal Morbidity</u>			
415	1	MM_MTR	Maternal Transfusion	Y N U	Yes No Unknown or not stated
416	1	MM_PLAC	Perineal Laceration	Y N U	Yes No Unknown or not stated
417	1	MM_RUPT	Ruptured Uterus	Y N U	Yes No Unknown or not stated
418	1	MM_UHYST	Unplanned Hysterectomy	Y N U	Yes No Unknown or not stated
419	1	MM_AICU	Admit to Intensive Care	Y N U	Yes No Unknown or not stated
420	1	FILLER	Filler	Blank	
421	1	F_MM_MTR	Reporting Flag for Maternal Transfusion	0 1	Non-Reporting Reporting
422	1	F_MM_PLAC	Reporting Flag for Perineal Laceration	0 1	Non-Reporting Reporting
423	1	F_MM_RUPT	Reporting Flag for Ruptured Uterus	0 1	Non-Reporting Reporting
424	1	F_MM_UHYST	Reporting Flag for Unplanned Hysterectomy	0 1	Non-Reporting Reporting
425	1	F_MM_AICU	Reporting Flag for Admission to Intensive Care	0	Non-Reporting

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Position	Length	Field	Description	Values	Definition
				1	Reporting
426	1	FILLER	Filler	Blank	
427	1	NO_MMORB	No Maternal Morbidity Reported	1 0 9	True False Not Reported
428-432	5	FILLER_MM	Filler	Blank	

433	1	ATTEND	Attendant at Birth	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
434	1	MTRAN	Mother Transferred Use reporting flag in field 126	Y N U	Yes No Unknown
435	1	PAY	Payment Source for Delivery	1 2 3 4 5 6 8 9	Medicaid Private Insurance Self-Pay Indian Health Service CHAMPUS/TRICARE Other Government (Federal, State, Local) Other Unknown
436	1	PAY_REC	Payment Recode	1 2 3 4 9	Medicaid Private Insurance Self Pay Other Unknown
437	1	F_PAY	Reporting Flag for Source of Payment	0 1	Non-Reporting Reporting
438	1	F_PAY_REC	Reporting Flag for Payment Recode	0 1	Non-Reporting Reporting
439-443	5	FILLER_A	Filler	Blank	

Data from non-reporting areas for an item are represented by Blanks (“not on certificate”) that are not otherwise indicated in the Values and Definitions.

Position	Length	Field	Description	Values	Definition
444-445	2	APGAR5	Five Minute APGAR Score	00-10 99	A score of 0-10 Unknown or not stated
446	1	APGAR5R	Five Minute APGAR Recode	1 2 3 4 5	A score of 0-3 A score of 4-6 A score of 7-8 A score of 9-10 Unknown or not stated
447	1	F_APGAR5	Reporting Flag for Five minute APGAR	0 1	Non-Reporting Reporting
448-449	2	APGAR10	Ten Minute APGAR Score Use reporting flag in field 126	00-10 88 99	A score of 0-10 Not applicable Unknown or not stated
450	1	APGAR10R	Ten Minute APGAR Recode Use reporting flag in field 126	1 2 3 4 5	A score of 0-3 A score of 4-6 A score of 7-8 A score of 9-10 Not stated/not applicable
451-453	3	FILLER	Filler	Blank	
454	1	DPLURAL	Plurality Recode	1 2 3 4 5	Single Twin Triplet Quadruplet Quintuplet or higher
455	1	FILLER	Filler	Blank	
456	1	IMP_PLUR	Plurality Imputed	Blank 1	Plurality is not imputed Plurality is imputed
457-458	2	FILLER	Filler	Blank	
459	1	SETORDER_R	Set Order Recode Use reporting flag in field 126	1 2 3 4 5 9	1 st 2 nd 3 rd 4 th 5 th to 16 th Unknown or not stated

Data from non-reporting areas for an item are represented by Blanks (“not on certificate”) that are not otherwise indicated in the Values and Definitions.

Position	Length	Field	Description	Values	Definition
460-474	15	FILLER	Filler	Blank	
<hr/>					
475	1	SEX	Sex of Infant	M F	Male Female
476	1	IMP_SEX	Imputed Sex	Blank 1	Infant Sex not Imputed Infant Sex is Imputed
477-478	2	DLMP_MM	Last Normal Menses Month	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
479-480	2	FILLER	Filler	Blank	
481-484	4	DLMP_YY	Last Normal Menses Year	nnnn 9999	Year of last normal menses Unknown or not stated
485-487	3	FILLER	Filler	Blank	
488	1	COMPGST_IMP	Combined Gestation Imputation Flag	Blank 1	Combined Gestation is not imputed Combined Gestation is imputed
489	1	OBGEST_FLG	Obstetric Estimate of Gestation Used Flag	Blank 1	Obstetric Estimate is not used Obstetric Estimate is used
490-491	2	COMBGEST	Combined Gestation – Detail in Weeks	17-47 99	17 th through 47 th week of Gestation Unknown
492-493	2	GESTREC10	Combined Gestation Recode 10	01 02 03 04 05 06	Under 20 weeks 20-27 weeks 28-31 weeks 32-33 weeks 34-36 weeks 37-38 weeks

Data from non-reporting areas for an item are represented by Blanks (“not on certificate”) that are not otherwise indicated in the Values and Definitions.

Position	Length	Field	Description	Values	Definition
				07	39 weeks
				08	40 weeks
				09	41 weeks
				10	42 weeks and over
				99	Unknown
494	1	GESTREC3	Combined Gestation Recode 3	1	Under 37 weeks
				2	37 weeks and over
				3	Not stated
495-497	3	FILLER	Filler	Blank	
498	1	LMPUSED	Combined Gestation Used Flag	Blank	Combined gestation not used
				1	Combined gestation used
499-500	2	OEGest_Comb	Obstetric Estimate Edited (NCHS standard item)	17-47	Weeks of gestation
				99	Not stated
501-502	2	OEGest_R10	Obstetric Estimate Recode10 (NCHS standard item)	01	Under 20 weeks
				02	20-27 weeks
				03	28-31 weeks
				04	32-33 weeks
				05	34-36 weeks
				06	37-38 weeks
				07	39 weeks
				08	40 weeks
				09	41 weeks
				10	42 weeks and over
				99	Unknown
503	1	OEGest_R3	Obstetric Estimate Recode 3 (NCHS Standard Item)	1	Under 37 weeks
				2	37 weeks and over
				3	Not stated

504-507	4	DBWT	Birth Weight – Detail in Grams (Edited)	0227-8165	Number of grams
				9999	Not stated birth weight
508	1	FILLER	Filler	Blank	
509-510	2	BWTR12	Birth Weight Recode 12	01	0227 - 0499 grams
				02	0500 – 0999 grams
				03	1000 - 1499 grams
				04	1500 – 1999 grams
				05	2000 – 2499 grams

Data from non-reporting areas for an item are represented by Blanks (“not on certificate”) that are not otherwise indicated in the Values and Definitions.

Position	Length	Field	Description	Values	Definition
				06	2500 – 2999 grams
				07	3000 – 3499 grams
				08	3500 – 3999 grams
				09	4000 – 4499 grams
				10	4500 – 4999 grams
				11	5000 – 8165 grams
				12	Not Stated
511	1	BWTR4	Birth Weight Recode 4	1	0227 - 1499 grams
				2	1500 – 2499 grams
				3	2500 - 8165 grams
				4	Unknown or not stated
512-516	5	FILLER_G	Filler	Blank	

517-536	20	<u>Abnormal Conditions of the Newborn</u>			
517	1	AB_AVEN1	Assisted Ventilation (immediately)	Y	Yes
				N	No
				U	Unknown or not stated
518	1	AB_AVEN6	Assisted Ventilation > 6 hrs	Y	Yes
				N	No
				U	Unknown or not stated
519	1	AB_NICU	Admission to NICU	Y	Yes
				N	No
				U	Unknown or not stated
520	1	AB_SURF	Surfactant	Y	Yes
				N	No
				U	Unknown or not stated
521	1	AB_ANTI	Antibiotics for Newborn	Y	Yes
				N	No
				U	Unknown or not stated
522	1	AB_SEIZ	Seizures	Y	Yes
				N	No
				U	Unknown or not stated
523	1	FILLER	Filler	Blank	
524	1	F_AB_VENT	Reporting Flag for Assisted Ventilation (immediately)	0	Non-Reporting

Data from non-reporting areas for an item are represented by Blanks (“not on certificate”) that are not otherwise indicated in the Values and Definitions.

Position	Length	Field	Description	Values	Definition
				1	Reporting
525	1	F_AB_VENT6	Reporting Flag for Assisted Ventilation >6 hrs	0 1	Non-Reporting Reporting
526	1	F_AB_NIUC	Reporting Flag for Admission to NICU	0 1	Non-Reporting Reporting
527	1	F_AB_SURFAC	Reporting Flag for Surfactant	0 1	Non-Reporting Reporting
528	1	F_AB_ANTIBIO	Reporting Flag for Antibiotics	0 1	Non-Reporting Reporting
529	1	F_AB_SEIZ	Reporting Flag for Seizures	0 1	Non-Reporting Reporting
530	1	FILLER	Filler	Blank	
531	1	NO_ABNORM	No Abnormal Conditions Checked	1 0 9	True False Not Reported
532-536	5	FILLER_AB	Filler	blank	

537-566	30	<u>Congenital Anomalies of the Newborn</u>			
537	1	CA_ANEN	Anencephaly	Y N U	Yes No Unknown or not stated
538	1	CA_MNSB	Meningomyelocele / Spina Bifida	Y N U	Yes No Unknown or not stated
539	1	CA_CCHD	Cyanotic Congenital Heart Disease	Y N U	Yes No Unknown or not stated
540	1	CA_CDH	Congenital Diaphragmatic Hernia	Y N U	Yes No Unknown or not stated
541	1	CA_OMP	Omphalocele	Y	Yes

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Position	Length	Field	Description	Values	Definition
				N	No
				U	Unknown or not stated
542	1	CA_GAST	Gastroschisis	Y	Yes
				N	No
				U	Unknown or not stated
543	1	F_CA_ANEN	Reporting Flag for Anencephaly	0	Non-Reporting
				1	Reporting
544	1	F_CA_MENIN	Reporting Flag for Meningomyelocele/Spina Bifida	0	Non-Reporting
				1	Reporting
545	1	F_CA_HEART	Reporting Flag for Cyanotic Congenital Heart Disease	0	Non-Reporting
				1	Reporting
546	1	F_CA_HERNIA	Reporting Flag for Congenital Diaphragmatic Hernia	0	Non-Reporting
				1	Reporting
547	1	F_CA_OMPHA	Reporting Flag for Omphalocele	0	Non-Reporting
				1	Reporting
548	1	F_CA_GASTRO	Reporting Flag for Gastroschisis	0	Non-Reporting
				1	Reporting
549	1	CA_LIMB	Limb Reduction Defect	Y	Yes
				N	No
				U	Unknown or not stated
550	1	CA_CLEFT	Cleft Lip w/ or w/o Cleft Palate	Y	Yes
				N	No
				U	Unknown or not stated
551	1	CA_CLPAL	Cleft Palate alone	Y	Yes
				N	No
				U	Unknown or not stated
552	1	CA_DOWN	Down Syndrome	C	Confirmed
				P	Pending
				N	No
				U	Unknown
553	1	CA_DISOR	Suspected Chromosomal Disorder	C	Confirmed
				P	Pending
				N	No
				U	Unknown

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Position	Length	Field	Description	Values	Definition
554	1	CA_HYPO	Hypospadias	Y N U	Yes, anomaly reported No, anomaly not reported Unknown
555	1	F_CA_LIMB	Reporting Flag for Limb Reduction Defect	0 1	Non-Reporting Reporting
556	1	F_CA_CLEFTLP	Reporting Flag for Cleft Lip with or without Cleft Palate	0 1	Non-Reporting Reporting
557	1	F_CA_CLEFT	Reporting Flag for Cleft Palate Alone	0 1	Non-Reporting Reporting
558	1	F_CA_DOWNS	Reporting Flag for Down Syndrome	0 1	Non-Reporting Reporting
559	1	F_CA_CHROM	Reporting Flag for Suspected Chromosomal Disorder	0 1	Non-Reporting Reporting
560	1	F_CA_HYPOS	Reporting Flag for Hypospadias	0 1	Non-Reporting Reporting
561	1	NO_CONGEN	No Congenital Anomalies Checked	1 0 9	True False Not Reported
562-566	5	FILLER_CA	Filler	Blank	
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567	1	ITRAN	Infant Transferred Use reporting flag in field 126	Y N U	Yes No Unknown or not stated
568	1	ILIVE	Infant Living at Time of Report Use reporting flag in field 126	Y N U	Yes No Unknown or not stated
569	1	BFED	Infant Breastfed at Discharge	Y N U	Yes No Unknown or not stated
570	1	F_BFED	Reporting Flag for Breastfed at Discharge	0 1	Non-Reporting Reporting

Data from non-reporting areas for an item are represented by Blanks (“not on certificate”) that are not otherwise indicated in the Values and Definitions.

Position	Length	Field	Description	Values	Definition
571-1330	760	FILLER_X	Filler	Blank	

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Position	Length	Field	Description	Values	Definition
ADDENDUM					
Detailed geographic information for the territories.					
24-25	2	OCTERR	Mother's Occurrence Territory/Possession		<u>Outlying Areas of the United States</u> 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
28-30	3	OCNTYFIPS	Occurrence FIPS County		<u>Puerto Rico</u> 021 Bayamo'n 025 Caguas 031 Carolina 097 Mayaguez 113 Ponce 127 San Juan 999 County of less than 100,000 <u>Other Outlying Areas of the United States</u> 000 No county level geography 999 County of less than 100,000
31	1	OCNTYPOP	Occurrence County Pop		0 County of 1,000,000 or more 1 County of 500,000 to 1,000,000 2 County of 250,000 to 500,000 3 County of 100,000 to 250,000 4 County of 50,000 to 100,000 5 County of 25,000 to 50,000 6 County of 10,000 to 25,000 9 County less than 10,000
80-81	2	MBCNTRY	Mother's Birth Country	AA-ZZ	See Geographic Documentation
85-86	2	MRCNTRY	Mother's Residence Country	AA-ZZ	See Geographic Documentation
89-90	2	MRTERR	Mother's Residence Territory		<u>Outlying Areas of the United States</u> AS American Samoa GU Guam MP Northern Marianas PR Puerto Rico

Data from non-reporting areas for an item are represented by Blanks ("not on certificate") that are not otherwise indicated in the Values and Definitions.

Position	Length	Field	Description	Values	Definition
				VI	Virgin Islands
				US	United States (births to residents of the 50 states or DC)
				XX	Not Applicable
				ZZ	Not Classifiable
91-93	3	RCNTY	Residence FIPS county		
				<u>Puerto Rico</u>	
				021	Bayamo'n
				025	Caguas
				031	Carolina
				097	Mayaguez
				113	Ponce
				127	San Juan
				999	County of less than 100,000
				<u>Other Outlying Areas of the United States</u>	
				000	No county level geography
				999	County of less than 100,000
99	1	RCNTY_POP	Population of Residence County		
				0	County of 1,000,000 or more
				1	County of 500,000 to 1,000,000
				2	County of 250,000 to 500,000
				3	County of 100,000 to 250,000
				4	County of 50,000 to 100,000
				5	County of 25,000 to 50,000
				6	County of 10,000 to 25,000
				9	County less than 10,000
				Z	Foreign resident
100	1	RCITY_POP	Population of Residence City		
				0	City of 1,000,000 or more
				1	City of 500,000 to 1,000,000
				2	City of 250,000 to 500,000
				3	City of 100,000 to 250,000
				4	City of 50,000 to 100,000
				5	City of 25,000 to 50,000
				6	City of 10,000 to 25,000
				9	All other areas in the US
				Z	Foreign resident
103	1	RECTYPE	Record Type		
				1	RESIDENT: Territory and county of occurrence and residence are the same.
				2	NONRESIDENT: Territory and county of occurrence and residence are different.

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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	DAHOMEY [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
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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
2017
NATALITY

U.S. DEPARTMENT OF
HEALTH AND HUMAN SERVICES

CENTERS FOR DISEASE CONTROL AND PREVENTION
NATIONAL CENTER FOR HEALTH STATISTICS

Hyattsville, Maryland: 2017

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 2017" [1], and are for use with the 2017 Natality public use data. The 2017 natality micro-data file may be downloaded at http://www.cdc.gov/nchs/data_access/VitalStatsOnline.htm [2]. The micro-data natality file does not include geographic detail (e.g., state or county of birth). Selected natality data, including some geographic data, are available in CDC WONDER (<http://wonder.cdc.gov>). CDC WONDER is an interactive online data access tool that provides selected natality data from 1995-2016. Beginning with the 2017 data, all items available in the public use file will be available in CDC WONDER.

A review of 2003-based birth certificate revision items in 2014 and 2015 by a collaborative effort among representatives from several vital statistics jurisdictions: The National Association for Public Health Statistics and Information Systems (NAPHSIS), and NCHS, resulted in the decision to drop a number of items from the national birth certificate data file for reasons of poor data quality. For more information on this effort and for a full list of items that were dropped, see https://www.cdc.gov/nchs/nvss/deleted_items_from_birth_fetal_death_files.htm.

Key natality items are presented in "Births in the United States, 2017," which will accompany the release of the 2017 public use file [2]. Information on other items can be found in the upcoming 2017 final report and accompanying internet tables [1]. Additional discussion of selected items (e.g., fiuse of assisted reproductive technology, preterm births, and tobacco use during pregnancy) is available in recent reports [3-8]. An assessment of the quality of many medical and health items is available in "Assessing the quality of medical and health data from the 2003 birth certificate revision: Results from two states" [9].

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, Guam, the U.S. Virgin Islands, American Samoa, and the Northern Marianas.

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 [10]. A slightly expanded definition of live birth was recommended by the 1992 and 2011 revisions of the Model State Vital

Statistics Act and Regulations [11,12], based on recommendations of a 1988 working group formed by the American Academy of Pediatrics and the American College of Obstetricians and Gynecologists [13] and is consistent with that currently used by the WHO in the ICD-10 [14] 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 a live birth from a fetal death in precise terms [15,16]. The vast majority of registration areas use definitions of live births similar to this definition [15]. All states require the reporting of live births regardless of length of gestation or birth weight.

The Birth Registration Area

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). In 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 [17].

Natality statistics for all states and the District of Columbia are based on information for 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 U.S. Virgin Islands, American Samoa, and the Northern Marianas. 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 for 2017 is obtained from paper copies of original birth certificates, which are coded and keyed by NCHS. For historical information on the birth registration system, see the User Guide to the 2014 Natality Public Use File [18].

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 (for further discussion see “Classification by occurrence and residence”). Births occurring to U.S. citizens or residents outside the

United States are not included in the natality file. Data for Puerto Rico, the U.S. 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 2017.

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 [19]. 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.

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., 2017 births to women aged 20-24 years and the 2017 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 [20].

Geographic classification: The geographic code structure for the 2017 natality file is given in the NCHS manual, “Vital Records Geographic Classification, 2014,” and in the country, county, and place

geographic code files [21,22]. The geographic code structure on the 2017 file is based on results of the 2010 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 has historically been 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 information on the 2003 standard certificate and 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. The 2003 birth certificate replaces the previous 1989 U.S. Standard Certificate of Live Birth [23,24]. Implementation of the 2003 U.S. Standard Certificate of Live Birth (revised) by the states and independent reporting areas was phased in from 2003 to 2016. All states and the District of Columbia had implemented the revised birth certificate as of January 1, 2016. Guam, Puerto Rico, the U.S. Virgin Islands, and the Northern Marianas had implemented the revised birth certificate as of January 1, 2017 (see User Guide to the 2015 Natality Public Use File [25] for a detailed implementation schedule).

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 [23,24]. For details on data items comparable between revisions see the User Guide to the 2014 Natality Public Use File [18]. For a list of items that were dropped in 2014 for reasons of poor data quality, see https://www.cdc.gov/nchs/nvss/deleted_items_from_birth_fetal_death_files.htm.

A key aspect of the 2003 revision of the U.S. Standard Certificate of Live Birth was the re-engineering of the data collection and transmission system to improve data quality, speed of data collection and transmission, and to enhance standardization of data [23,26]. To encourage collection of data from the best sources, two worksheets were developed: the “Mother’s Worksheet” (available at <https://www.cdc.gov/nchs/data/dvs/moms-worksheet-2016.pdf>) [27] and the “Facility Worksheet”

(available at <https://www.cdc.gov/nchs/data/dvs/facility-worksheet-2016.pdf>) [28]. 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 of first prenatal care visit, 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) ("Guide to the Facility Worksheet"; available at <https://www.cdc.gov/nchs/data/dvs/GuidetoCompleteFacilityWks.pdf>) [29]. Detailed definitions and instructions for data items that are collected from the Facility Worksheet are in the "Guide to the Facility Worksheet".

The first ever eLearning training, "Applying Best Practices for Reporting Medical and Health Information on Birth Certificates," on completing the medical and health information for the birth certificate was launched in October 2016. The training emphasizes the importance and uses of birth certificate data and best practices for collecting specific birth medical and health items. The audience for the training includes birth information specialists, physicians, nurses, and hospital administrators. Continuing education credits for nurses, physicians, and non-clinical staff are also available. The training is internet-based and approximately 45 minutes in length. It is available at www.cdc.gov/nchs/training/BirthCertificateElearning.

Detailed descriptions of editing and computation methods of the items described below are available [30,31].

Nativity data files

Micro-data files: Natality micro-data files for data years 1968-2017 may be downloaded at http://www.cdc.gov/nchs/data_access/VitalStatsOnline.htm. The general rules used to classify characteristics of live births are presented in several NCHS manuals [21,22,26,30,31]. These instructions are for states to use to collect and code the data items; they do not include NCHS edit recodes.

The 2003-2015 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. See the file layout in this User Guide. Certain data items new to the 2003 revised certificate (e.g., maternal morbidity) are available beginning with data files 2009.

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 data use policy is available at http://www.cdc.gov/nchs/nvss/dvs_data_release.htm [32].

Demographic Characteristics

Hispanic origin and race

Hispanic origin: Hispanic origin and race are reported separately on the birth certificate (**Figure 1**). It is recommended that this information be reported directly by the mother via the Mother's Worksheet [27].

Data on the public use file and in NCHS reports for specified Hispanic groups are shown in most cases for five specified Hispanic 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 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 (single-race) white women. American Samoa does not currently collect information on Hispanic origin.

The Hispanic origin question 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. From 2003 through 2012, respondents who selected more than one Hispanic origin on the birth certificate were classified as "other Hispanic". Beginning with the 2013 data year, respondents who select more than one Hispanic origin are randomly assigned to a single Hispanic origin. This change was implemented to be consistent with the coding methods of the American Community Survey [33], on which the rates for the specified Hispanic groups from 2010 on are based (see "Population estimates for the specific Hispanic groups").

The percentage of records for which Hispanic origin of the parents was not reported in 2017 is presented by reporting area in **Table B**.

Change in births to “other and unknown Hispanic” women: The number of births to “other and unknown Hispanic” women increased by 1.0% from 145,381 in 2016 to 146,849 in 2017, increasing steadily from 48,972 in 2003. Factors that may have influenced this rise are not clear but may include less specificity in respondent reporting of Hispanic origin and increases in the populations of groups included in the “other Hispanic” category.

Race of mother and father: Reported separately from Hispanic origin, the instructions are to check one or more races to indicate what the mother/father considers her/himself to be. It is recommended that this information be reported directly by the mother via the Mother’s Worksheet [27]. The 2003 revision of the U.S. Standard Certificate of Live Birth allows the reporting of the five race categories either alone (i.e., single-race) or in combination (i.e., more than one race or multiple races) for each parent [24], in accordance with the revised standards issued by the Office of Management and Budget (OMB) in 1997 [34]. The five categories for race specified in the revised standards are: American Indian or Alaska Native (AIAN), Asian, Black or African American, Native Hawaiian or Other Pacific Islander (NHOPI), and White. Information on this change is presented elsewhere [35-37].

Starting in 2016, all states and the District of Columbia, in addition to Puerto Rico, the U.S. Virgin Islands, Guam and Northern Marianas, reporting race according to the 1997 revised OMB standards, with 2.6% of mothers in the U.S. reporting more than one race in 2017 (**Documentation Table 1**).

Data from American Samoa still follow the 1977 OMB standards, which required a minimum set of four single-race categories [American Indian or Alaska Native (AIAN), Asian or Pacific Islander (API, with Asian combined with Pacific Islander), black, and white, and to allow respondents to select only one race category [38].

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. In 2017, race of mother was imputed for 6.1% of births (by occurrence).

Age of mother

The age of mother is derived from the reported month and year of birth. It is recommended that this information be reported directly by the mother via the [Mother’s Worksheet](#) [27]. For American Samoa, exact age of mother was reported.

Imputation of age of mother: 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). A review and verification of unedited data for several years showed that the vast majority of births reported as occurring to women aged 50 years and older were to women aged 50-54 years.

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".

Mean age of mother: Mean age is the arithmetic average of an age distribution. Trend data on the mean age of mother, derived directly from frequencies of births by age, are available at <https://www.cdc.gov/nchs/products/vsus.htm#natab2003>, [39] and for recent years, in **Table I-6** of the 2017 Final Report [1]. For information on median age of mother, see User Guide for the 2014 Natality Public Use File [18].

Not stated age or date of birth of mother: Beginning in 1964, birth records with date of birth of mother and/or age of mother not stated have had age imputed (490 records; 0.01% for 2017) 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 [31,40]).

Age of father

Information on age of father is derived from the father's date of birth and is recommended to be reported directly by the mother. See the [Mother's Worksheet](#) [27]. 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. See also the NCHS manual for detailed descriptions of editing and computation methods [30] and **Table B** for the percent of records for which father's age is not stated.

Marital status

National estimates of births to unmarried women are based on two methods of determining marital status: 1) direct question; and 2) inferential procedures (described below). For more details on the history of the two methods, see the User Guide for the 2014 Natality Public Use File [18].

It is recommended that information on marital status be reported directly by the mother using the Mother's Worksheet [27]. See also the NCHS manual for detailed descriptions of editing and computation methods [30,31] and **Tables 9, 10, and I-7** of the 2017 Final Report [1].

Inferential procedures: Historical information on inferential procedures can be found in the 2014 User Guide [18]. In 2017, inferential procedures were used to compile birth statistics by marital status in full or in part for New York (excluding New York City). 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. 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: Mother's marital status was not reported in 2017 on 0.4% of the birth records where this information is obtained exclusively by a direct question (i.e., in the 49 states, the District of Columbia, and New York City). 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.

Beginning in 2017, NCHS cannot release record-level data on the marital status of the mother for births occurring in or to residents of California due to state statutory restrictions. Tabulated data on births by marital status for California were provided to NCHS by the state for the preparation of this report and national and state information on marital status is included in the 2017 Final Report [1].

Educational attainment

Mother: Educational attainment is based on the highest degree or level of school completed at the time of the delivery. It is recommended that information on educational attainment of the mother be reported directly by the mother using the [Mother's Worksheet](#) [27]. See also the NCHS manual for detailed descriptions of editing and computation methods [30,31], **Table I-8** of the 2017 Final Report [1], and **Table B** for the percent of records for which mother's education is not stated.

Father: The question on educational attainment of the father is parallel to that for the mother. 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 for the United States was 14.0 percent (**Table B**) in 2017, this information was missing for more than one-third of records for two states (Delaware and Wisconsin).

Live-birth order and parity

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.” Live-birth order and parity classifications refer to the total number of live births the mother has had including the 2017 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.

It is recommended that this information be collected directly from the prenatal care record using the [Facility Worksheet](#) [28]. Detailed instructions and definitions for these items are presented in the [Guide to the Facility Worksheet](#) [29]. See also the NCHS manual for detailed descriptions of editing and computation methods [30,31] and **Table B** for the percent of records for which live birth order is not stated.

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

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). In a plural delivery, the second and higher order birth within a set is classified at an interval of 0-3 months.

It is recommended that this information be collected directly from the prenatal care record using the [Facility Worksheet](#) [28]. Detailed instructions and definitions for these items are presented in the [Guide to the Facility Worksheet](#) [29]. See also the NCHS manual for detailed descriptions of editing and computation methods [30,31], **Table I-10** of the 2017 Final Report [1], and **Table B** for the percent of records for which birth interval is not stated.

Medical and Public Services Utilization

Prenatal care

Information on the timing and number of prenatal care visits is collected from the items “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 prenatal care began (ranging from months 1-10 of the pregnancy based on the obstetric estimate of gestation) as well as a recode for the trimester prenatal care began (1st, 2nd, or 3rd). “Date of the last prenatal care visit” is no longer available in the public use file due to concerns with data quality.

It is recommended that prenatal care information be collected directly from the prenatal care record using the [Facility Worksheet](#) [28]. Detailed instructions and definitions for these items are presented in the [Guide to the Facility Worksheet](#) [29]. See also the NCHS manual for detailed descriptions of editing and computation methods [30,31], **Table 16** of the 2017 Final Report [1], and **Table B** for the percent of records for which month prenatal care began and number of prenatal care visits is not stated.

In 2014, NCHS changed from the date of the last menstrual period (LMP) to the obstetric estimate (OE) to calculate gestational age [18]. Also in 2014, NCHS changed the way the month in which prenatal care began is calculated to use of the OE-based method. This change resulted in higher percentages of prenatal care beginning in the 1st trimester. For example, in 2014, the percentage of births with prenatal care beginning in the 1st trimester was 73.3% when based on LMP (data not available) compared with 76.6% when based on OE. By state, 1st trimester prenatal care based on OE was, on average, 5% higher than 1st trimester care based on LMP. Accordingly, prenatal care data based on the OE are not comparable with those based on the LMP.

WIC food during pregnancy

It is recommended that information on receipt of WIC (The Special Supplemental Nutrition Program for Women, Infants, and Children) food for the mother during this pregnancy be reported directly by the mother using the [Mother’s Worksheet](#) [27]. WIC is a program 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; it is administered by the U.S. Department of Agriculture [43]. See also the NCHS manual for detailed descriptions of editing and

computation methods [30,31], **Table I-11** of the 2017 Final Report [1], and **Table B** for the percent of records for which receipt of WIC is not stated.

Obstetric procedures

Two obstetric procedures: 1) successful external cephalic version and 2) failed external cephalic version are available in the 2017 natality public use file. The choice “None of the above” is available if external cephalic version is not applicable. If the item is not completed (i.e. none of the boxes are checked), it is classified as “Not stated.” Cervical cerclage and tocolysis are no longer available in the public use file due to concerns with data quality.

It is recommended that this information on obstetric procedures be collected directly from the medical record using the [Facility Worksheet](#) [28]. Detailed instructions and definitions are presented in the [Guide to the Facility Worksheet](#) [29]. See also the NCHS manual for detailed descriptions of editing and computation methods [30,31], **Table I-14** of the 2017 Final Report [1], and **Table B** for the percent of records for which obstetric procedures is not stated.

Characteristics of labor and delivery

Six characteristics of labor and delivery are separately identified in a checkbox format: 1) induction of labor; 2) augmentation of labor; 3) steroids; 4) antibiotics received by the mother during labor; 5) clinical chorioamnionitis or maternal temperature $\geq 38^{\circ}\text{C}$; and 6) epidural or spinal anesthesia during labor. 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.” Due to concerns with data quality, non-vertex presentation, moderate/heavy meconium staining of the amniotic fluid, and fetal intolerance of labor are no longer available in the public use file.

It is recommended that this information be collected directly from the medical record using the [Facility Worksheet](#) [28]. Detailed instructions and definitions for the characteristics are presented in the [Guide to the Facility Worksheet](#) [29]. See also the NCHS manual for detailed descriptions of editing and computation methods [30,31], **Table I-15** of the 2017 Final Report [1], and **Table B** for the percent of records for which characteristics of labor and delivery is not stated.

Place of birth

Five options for place of birth are identified in a checkbox format: 1) hospital; 2) freestanding birth center; 3) home birth, 4) clinic/doctor's office and 5) other (must be specified). If the item is not completed (i.e., none of the boxes are checked), it is classified as "Not stated".

It is recommended that this information be collected directly from the medical record using the [Facility Worksheet](#) [28]. Detailed instructions and definitions for the characteristics are presented in the [Guide to the Facility Worksheet](#) [29]. See also the NCHS manual for detailed descriptions of editing and computation methods [30,31], **Tables I-4** and **I-5** of the 2017 Final Report [1], and **Table B** for the percent of records for which place of birth is not stated.

Planned home births: Information on whether the home birth was planned is reported by 49 states and the District of Columbia (excludes California), representing 87.8 percent of 2017 births. 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.

A reporting flag should be used to generate accurate numbers by residence for planned home births. The reporting flag (the file position is specified in the file layout) will exclude births to residents of non-reporting states (California). More information on the use of reporting flags can be found in the introduction to the User Guide for the 2014 Natality Public Use File [18].

Time of birth

Time of birth is based on a 24-hour (military) clock. It is recommended that this information be collected directly from the medical record using the [Facility Worksheet](#) [28]. Detailed instructions and definitions for the characteristics are presented in the [Guide to the Facility Worksheet](#) [29]. See also the NCHS manual for detailed descriptions of editing and computation methods [30,31], **Tables I-1** of the 2017 Final Report [1], and **Table B** for the percent of records for which time of birth is not stated.

Attendant at birth

Five options for title of attendant at birth are identified in a checkbox format: 1) MD (medical doctor) 2) DO (osteopath) 3) CNM/CM (certified nurse midwife/certified midwife) 4) other midwife 5) other (must be specified). If the item is not completed (i.e., none of the boxes are checked), it is classified as "Not stated".

It is recommended that this information be collected directly from the medical record using the [Facility Worksheet](#) [28]. Detailed instructions and definitions for the characteristics are presented in the [Guide to the Facility Worksheet](#) [29]. See also the NCHS manual for detailed descriptions of editing and

computation methods [30,31], **Tables I-4** of the 2017 Final Report [1], and **Table B** for the percent of records for which attendant at birth is not stated.

CNM/CM-attended births: There is evidence that the number of live births attended by CNM/CM is understated [44], 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 when no physician is physically present at midwife-attended births.)

Method of delivery

Three options for fetal presentation at birth are identified in a checkbox format: 1) cephalic; 2) breech; and 3) other. Four options for final route and method of delivery are identified in a checkbox format: 1) vaginal/spontaneous; 2) vaginal/forceps; 3) vaginal/vacuum; and 4) cesarean. If either of the two items, fetal presentation at birth and final route and method of delivery, are not completed (i.e., none of the boxes are checked), they are classified as “Not stated”. The checkboxes, stating whether delivery with forceps or vacuum extraction was unsuccessful are no longer included in the public use files due to concerns with data quality.

It is recommended that this information be collected directly from the medical record using the [Facility Worksheet](#) [28]. Detailed instructions and definitions for the characteristics are presented in the [Guide to the Facility Worksheet](#) [29]. See also the NCHS manual for detailed descriptions of editing and computation methods [30,31], **Table I-17** of the 2017 Final Report [1], and **Table B** for the percent of records for which fetal presentation and final route and method of delivery is not stated.

Trial of labor: If the final route and method of delivery was cesarean (box checked) then the question “If cesarean, was a trial of labor attempted?” Yes/ No is asked. See **Table I-17** of the 2017 Final Report [1].

Total cesarean rate: The overall cesarean delivery rate or total cesarean rate is computed as the percent of all births delivered by cesarean. See **Tables 17, 18, I-16** and **I-17** of the 2017 Final Report [1].

Low-risk cesarean rate: The low-risk cesarean delivery rate is the number of singleton, term (37 or more weeks of gestation based on obstetric estimate), cephalic, cesarean deliveries to women having a first birth per 100 women delivering singleton, term, cephalic, first births. Obstetric estimate and live-birth order are discussed in more detail elsewhere. See **Tables 17, 18** and **I-16** of the 2017 Final Report [1].

Primary cesarean and VBAC delivery rates: The primary cesarean and vaginal birth after previous cesarean (VBAC) delivery 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 is computed as the number of women having a first cesarean delivery divided by 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 a previous cesarean. The rate of VBAC delivery is computed by dividing all VBAC deliveries by the sum of VBAC and repeat cesarean deliveries, that is, women with a previous cesarean delivery. See **Tables 17** and **18** of the 2017 Final Report [1].

Payment source for delivery

Four options for source of payment at delivery are identified in a checkbox format: 1) private insurance; 2) Medicaid; 3) self-pay; and 4) other (must be specified). If the item is not completed (i.e., none of the boxes are checked), it is classified as “Not stated”. The instructions are to check the box that best describes the principal source of payment for this delivery.

It is recommended that this information be collected directly from the medical record using the [Facility Worksheet](#) [28]. Detailed instructions and definitions for the characteristics are presented in the [Guide to the Facility Worksheet](#) [29]. See also the NCHS manual for detailed descriptions of editing and computation methods [30,31], **Table 19** of the 2017 Final Report [1], and **Table B** for the percent of records for which source of payment is not stated.

More detailed information for the “other” category is available for 35 states, representing 57.2 percent of all U.S. births in 2017. For these states, the “Other” category is further delineated into the following groups: 1) Indian Health Service; 2) CHAMPUS/TRICARE; 3) Other government; and 4) other (must be specified). A reporting flag should be used to generate accurate numbers by residence for more detailed source of payment at delivery. The reporting flag (the file position is specified in the file layout) will exclude births to residents of non-reporting states (Arkansas, Arizona, Florida, Illinois, Michigan, Minnesota, Missouri, Mississippi, New Hampshire, New Jersey, North Carolina, Pennsylvania, Texas, Vermont, Virginia, and the District of Columbia). More information on the use of reporting flags can be found in the introduction to the User Guide for the 2014 Natality Public Use File [18].

Maternal Behavior and Health Characteristics

Mother's pre-pregnancy body mass index (BMI)

BMI provides an indication of the mother's body fat based on her height and pre-pregnancy weight (see below). Mother's height and pre-pregnancy weight are discussed in more detail below. Mother's pre-pregnancy BMI is calculated as:

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

The currently used categories for BMI were established by the National Health, Lung and Blood Institute (NHBL) in the late 1990s [45]. See the NCHS manual for detailed descriptions of editing and computation methods [30,31], **Table I-9** of the 2017 Final Report [1].

Mother's height

Mother's height is one of the measurements used to compute mother's pre-pregnancy BMI (see above). The range of acceptable values for this item is 1-8 feet and 1-11 inches.

It is recommended that information on the mother's height (in feet/inches) come from the [Mother's Worksheet](#) [27]. See the NCHS manual for detailed descriptions of editing and computation methods [30,31] and **Table B** for the percent of records for which mother's height is not stated.

Mother's pre-pregnancy weight

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 below). The range of values accepted for mother's pre-pregnancy weight is 50-400 pounds. All other values are edited to "Not stated".

It is recommended that information on the mother's pre-pregnancy weight (in pounds) be reported directly by the mother via the [Mother's Worksheet](#) [27]. See the NCHS manual for detailed descriptions of editing and computation methods [30,31] and **Table B** for the percent of records for which mother's pre-pregnancy weight is not stated.

Mother's weight at delivery

Mother's weight at delivery, along with mother's pre-pregnancy weight, is used to compute the mother's weight gain during pregnancy (see below). The range of values accepted for mother's weight at delivery is 50-450 pounds.

It is recommended that this information be collected directly from the medical record using the [Facility Worksheet](#) [28]. Detailed instructions and definitions for the characteristics are presented in the [Guide to the Facility Worksheet](#) [29]. See also the NCHS manual for detailed descriptions of editing and computation methods [30,31] and **Table B** for the percent of records for which mother's weight at delivery is not stated.

Weight gain during pregnancy

Information on weight gain during pregnancy is derived from mother's pre-pregnancy weight and mother's weight at delivery (see above). Mother's weight gain during pregnancy is calculated by subtracting the mother's pre-pregnancy weight from her weight at delivery. Weight gain during pregnancy is reported in pounds. A reported loss of weight is recorded as zero gain. See also the NCHS manual for detailed descriptions of editing and computation methods [30,31].

Cigarette smoking before and during pregnancy

The question asks for the number of cigarettes (or packs) smoked in the three months prior to becoming pregnant and in each trimester. All entries reporting packs of cigarettes are converted to the corresponding 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). Women with unknown smoking status for any trimester who report not smoking in other trimesters are classified as "Unknown smoking status".

Quitting smoking before or 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 of the other trimesters, 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" [31].

It is recommended that information on smoking before and during pregnancy be reported directly by the mother via the [Mother's Worksheet](#) [27]. See also the NCHS manual for detailed descriptions of

editing and computation methods [30,31], **Table 15** of the 2017 Final Report [1], and **Table B** for the percent of records for which cigarette smoking before and during pregnancy is not stated.

Risk factors in this pregnancy

Six risk factors are separately identified in a checkbox format: 1) diabetes (pre-pregnancy or gestational); 2) hypertension (pre-pregnancy or gestational); 3) eclampsia; 4) previous preterm births; 5) pregnancy resulted from infertility treatment; and 6) mother had a previous cesarean delivery. This item allows for the reporting of more than one risk factor 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 checkbox “Other previous poor pregnancy outcome” is no longer available in the public use files because of concerns with data quality.

It is recommended that this information be collected directly from the medical record using the [Facility Worksheet](#) [28]. Detailed instructions and definitions for the characteristics are presented in the [Guide to the Facility Worksheet](#) [29]. See also the NCHS manual for detailed descriptions of editing and computation methods [30,31], **Table I-12** of the 2017 Final Report [1], and **Table B** for the percent of records for which risk factors is not stated.

Eclampsia: Information on eclampsia is available for 48 states and the District of Columbia (excludes South Carolina and Tennessee), representing 96.4 percent of 2017 births. A reporting flag should be used to generate accurate numbers by residence for eclampsia. The reporting flag (the file position is specified in the file layout) will exclude births to residents of non-reporting states. More information on the use of reporting flags can be found in the introduction to the User Guide for the 2014 Natality Public Use File [18].

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), ZIFT).

A total of 48 states and the District of Columbia (excludes South Carolina, and Tennessee), representing 96.4 percent of 2017 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.

A reporting flag should be used to generate accurate numbers by residence for type of infertility treatment used. The reporting flag (the file position is specified in the file layout) will exclude births to residents of non-reporting states. More information on the use of reporting flags can be found in the introduction to the User Guide for the 2014 Natality Public Use File [18].

Infections present and/or treated during this pregnancy

Five infections are separately identified in a checkbox format: 1) gonorrhea; 2) syphilis; 3) chlamydia; 4) hepatitis B; and 5) hepatitis C. This is a checkbox item allowing 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”.

It is recommended that this information be collected directly from the medical record using the [Facility Worksheet](#) [28]. Detailed instructions and definitions for the characteristics are presented in the [Guide to the Facility Worksheet](#) [29]. See also the NCHS manual for detailed descriptions of editing and computation methods [30,31], **Table I-13** of the 2017 Final Report [1], and **Table B** for the percent of records for which infections present and/or treated during this pregnancy is not stated.

Maternal morbidity

Five maternal morbidities are separately identified in a checkbox format: 1) maternal transfusion; 2) third or fourth degree perineal laceration; 3) ruptured uterus; 4) unplanned hysterectomy; and 5) admission to intensive care unit. 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 checkbox item “unplanned operating room procedure following delivery” is no longer included in the public use file because of concerns with data quality.

It is recommended that this information be collected directly from the medical record using the [Facility Worksheet](#) [28]. Detailed instructions and definitions for the characteristics are presented in the [Guide to the Facility Worksheet](#) [29]. See also the NCHS manual for detailed descriptions of editing and computation methods [30,31], **Table I-18** of the 2017 Final Report [1], and **Table B** for the percent of records for which maternal morbidities is not stated.

Infant Health Characteristics

Period of gestation

Beginning with the 2014 data year, NCHS transitioned to a new standard for estimating the gestational age of the newborn. The new measure – the obstetric estimate of gestation at delivery (OE) replaces the measure based on the data of the last normal menses (LMP) [46]. Accordingly, gestational age data in standard reports are based on the OE. However, LMP-based data are also available. National data based on the OE are available only from data year 2007 forward. Gestational age estimates differ somewhat between the OE- and LMP-based measures. For example, the 2017 OE-based preterm birth rate is 9.93% compared with the LMP-based rate of 11.64%. Of note, both preterm birth rates declined from 2007 to 2014 but rose from 2015 to 2017. Discussion of the reasons for the change, and a detailed comparison of the two measures, are presented elsewhere [46].

Births occurring before 37 completed weeks of gestation are considered to be preterm for purposes of classification consistent with the ICD-9 and ICD-10 definitions [14]. NCHS further categorizes births at less than 34 weeks as early preterm and births at 34-36 weeks as late preterm. Births occurring between 37 and 38 completed weeks are considered early term, between 39 and 40 completed weeks as full term, 41 completed weeks as late term, and at 42 completed weeks and over as post-term. These distinctions are consistent with the revised American College of Obstetrics and Gynecology revised term definitions [47].

It is recommended that this information be collected directly from the medical record using the [Facility Worksheet](#) [28]. Detailed instructions and definitions for the characteristics are presented in the [Guide to the Facility Worksheet](#) [29]. See also the NCHS manual for detailed descriptions of editing and computation methods [30,31], **Tables 20, 21, I-19, and I-20** of the 2017 Final Report [1], and **Table B** for the percent of records for which period of gestation is not stated.

Birthweight

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) [14,48]. 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.

It is recommended that this information be collected directly from the medical record using the [Facility Worksheet](#) [28]. Detailed instructions and definitions for the characteristics are presented in the [Guide to the Facility Worksheet](#) [29]. See also the NCHS manual for detailed descriptions of editing and computation methods [30,31], **Tables 22, 23, I-21, and I-22** of the 2017 Final Report [1], and **Table B** for the percent of records for which birthweight is not stated.

Apgar score

5-minute score: 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.

10-minute Apgar score: The 2003 revised certificate asks for a 10-minute Apgar score if the 5-minute score is less than 6. Ten-minute Apgar score was reported for percent (45,241) of births in 2017; an additional percent (2,517) of births had “Not stated” 10-minute Apgar score for infants whose 5-minute score was less than 6.

It is recommended that this information be collected directly from the medical record using the [Facility Worksheet](#) [28]. Detailed instructions and definitions for the characteristics are presented in the [Guide to the Facility Worksheet](#) [29]. See also the NCHS manual for detailed descriptions of editing and

computation methods [30,31] and **Table B** for the percent of records for which 5-minute and 10-minute Apgar score is not stated.

Abnormal conditions of the newborn

Six abnormal conditions of the newborn are separately identified in a checkbox format: 1) assisted ventilation required immediately following delivery; 2) assisted ventilation required for more than six hours; 3) NICU admission; 4) newborn given surfactant replacement therapy; 5) antibiotics received by the newborn for suspected neonatal sepsis; and 6) seizure or serious neurological dysfunction. 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 checkbox item significant birth injury is no longer included in the public use file because of concerns with data quality.

It is recommended that this information be collected directly from the medical record using the [Facility Worksheet](#) [28]. Detailed instructions and definitions for the characteristics are presented in the [Guide to the Facility Worksheet](#) [29]. See also the NCHS manual for detailed descriptions of editing and computation methods [30,31], **Table I-24** of the 2017 Final Report [1], and **Table B** for the percent of records for which abnormal conditions of the newborn is not stated.

Congenital anomalies of the newborn

Twelve congenital anomalies are separately identified in a checkbox format: 1) anencephaly; 2) meningomyelocele/spina bifida; 3) cyanotic congenital heart disease; 4) congenital diaphragmatic hernia; 5) omphalocele; 6) gastroschisis; 7) limb reduction defect; 8) cleft lip with or without cleft palate; 9) cleft palate alone; 10) Down syndrome; 11) suspected chromosomal disorder; and 12) hypospadias. 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”.

Data for the congenital anomaly “Hypospadias” are edited to exclude this condition where the infant is a female.

It is recommended that this information be collected directly from the medical record using the [Facility Worksheet](#) [28]. Detailed instructions and definitions for the characteristics are presented in the [Guide to the Facility Worksheet](#) [29]. See also the NCHS manual for detailed descriptions of editing and computation methods [30,31], **Table I-25** of the 2017 Final Report [1], and **Table B** for the percent of

records for which congenital anomalies is not stated. See the Quality of Data section below for discussion of quality concerns with rarely occurring events.

Down Syndrome and suspected chromosomal disorder: The item includes a general checkbox question about whether Down Syndrome and suspected chromosomal disorder are present. If “Yes” (box checked), the following question is asked: karyotype pending or karyotype confirmed. These responses are combined for a “Yes” response.

Plurality

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. Records for which plurality is unknown are imputed as singletons. This occurred for 0.006% (231) of all records for 2017.

It is recommended that this information be collected directly from the medical record using the [Facility Worksheet](#) [28]. Detailed instructions and definitions for the characteristics are presented in the [Guide to the Facility Worksheet](#) [29]. See also NCHS manuals for detailed descriptions of editing and computation methods [30,31], **Tables 24, 25, and I-23** in the 2017 Final Report [1].

Infant breastfed

Information on whether the infant was being breastfed during the period from birth to discharge from the hospital is available 48 states and the District of Columbia (excludes California and Michigan), representing 84.9 percent of all U.S. births in 2017. 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.

It is recommended that this information be collected directly from the medical record using the [Facility Worksheet](#) [28]. Detailed instructions and definitions for the characteristics are presented in the [Guide to the Facility Worksheet](#) [29]. See also NCHS manuals for detailed descriptions of editing and computation methods [30,31], **Table I-11** in the 2017 Final Report [1], and **Table B** for the percent of records for which infant breastfed at discharge is not stated.

A reporting flag should be used to generate accurate numbers by residence for infant breastfed. The reporting flag (the file position is specified in the file layout) will exclude births to residents of non-reporting states. More information on the use of reporting flags can be found in the introduction to the User Guide for the 2014 Natality Public Use File [18].

Definitions of medical terms

For definitions and discussion of the maternal and infant health characteristics, see the [Guide to the Facility Worksheet](#) [27].

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 2017 were registered.

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. Items with high percentages of “Not stated” should be interpreted with caution.

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 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: A 2013 report based on studies in two states showed that the quality of data items on the 2003 revised birth certificate varied widely. That is, some items are collected in such a manner that exact agreement with the medical records (considered the “gold standard”) for non-check box items and sensitivity for checkbox items was high, whereas some health and medical condition items on the birth certificate are likely underreported [9].

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 mentioned above. Examples are maternal morbidities, such as ruptured uterus and unplanned hysterectomy. These may be underreported on the birth certificate 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 [49] compared with 0.08 percent for comparable birth certificate data in 2014. Although there are other reasons for the differences in the rates, such as the differing time periods under study, these findings suggest that the birth certificate data likely underreport these morbidities.

It is well documented that congenital anomalies, except for the most visible and most severe, have historically been under-reported on birth certificates [50]. 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 U.S. 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 [51]. However, it is not clear 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 for 2017

These state-specific data quality issues are of particular concern due to underreporting and/or inaccurate reporting for 2017. *These data should be used with caution.*

Alaska:

- ***Risk Factors*** - Eclampsia

Arkansas:

- ***Infections present and/or treated during this pregnancy*** – Hepatitis B
- ***Fetal presentation***

Indiana:

- ***Abnormal conditions of the newborn*** – Assisted ventilation immediately following delivery

Iowa:

- ***Abnormal conditions of the newborn*** – Antibiotics

Michigan:

- ***Breastfeeding*** – Item wording is not consistent with the national standard item wording and data for this state are not considered comparable with those of other states. Use the reporting flag for this item to exclude Michigan data from the reporting area totals.

New Mexico:

- ***Risk Factors*** – Previous preterm birth
- ***Characteristics of Labor & Delivery*** – Steroids for fetal lung maturation received by mother
- ***Characteristics of Labor & Delivery*** – Antibiotics received by mother during labor
- ***Infections present and/or treated during this pregnancy*** – All items
- ***Obstetric procedures*** – Successful external cephalic version

Puerto Rico:

- ***Characteristics of Labor & Delivery*** – Anesthesia, Induction of labor

Rhode Island:

- ***Prenatal care items*** – Number of prenatal care visits

Virginia:

- ***Prenatal care items*** – Number prenatal care visits
- ***Pregnancy risk factors*** – All items except Eclampsia, Previous cesarean delivery
- ***Obstetric procedures*** – Successful, Failed External cephalic version
- ***Characteristics of labor & delivery*** – All items
- ***Maternal morbidities*** – All items
- ***Abnormal conditions*** – All items

Computation of Rates and Other Measures

Population denominators

2017 population estimates: Birth and fertility rates for 2017 shown in the 2017 Final Report [1] are based on populations estimated from the 2010 census as of July 1, 2017. These populations are shown in **Table 1**. The population estimates have been provided by the U.S. Census Bureau [52] and are based on the 2010 census counts by age, race (consistent with the revised 1997 OMB standards), and sex [24].

Birth and fertility rates by state shown in the 2017 Final Report [1] are based on state-level population estimates based on the 2010 census provided by the U.S. Census Bureau [52]. Birth and fertility rates for the territories except Puerto Rico are based on population estimates available from the U.S. Census Bureau's International Data Base [53]. Rates for Puerto Rico are based on population estimates from the 2010 census as of July 1, 2017, and are available from the U.S. Census Bureau [54].

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 are based on monthly population estimates also based on the 2010 census estimates. Rates for unmarried women are based on distributions of the population by marital status averaged over a 2-year period for 2016–2017 as reported by the U.S. Census Bureau in the March Current Population Survey (CPS) for each year [55,56], which have been adjusted to July 1, 2017 (2010 census) population levels [52] by NCHS' Division of Vital Statistics [41].

As of the preparation of this report, data from the March CPS for 2018 were not available. Accordingly, the distributions of the population by marital status were based on a 2-year average of 2016 and 2017. For earlier years, rates for unmarried women are based on distributions of the population by marital status averaged over a 3-year period.

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 American, and Other Hispanic populations) are based on population estimates derived from the 1-year American Community Survey (ACS) [57] and adjusted to the U.S. resident population control totals by the U.S. Census Bureau. For detailed information on the

population estimates for the specific Hispanic groups, see the User Guide for the 2016 Natality Public Use File [58].

The 2017 population estimates for the specific Hispanic population groups were not available as of the preparation of the 2017 final report. Accordingly, birth and fertility rates for these groups are not shown in this report. Birth and fertility rates for the specified Hispanic population groups will be available in forthcoming expanded report tables of the 2017 Final Report [1]. These estimates will be derived from the 2017 1-year ACS and adjusted according to the (2010-based) postcensal estimates for July 1, 2017.

Revised population estimates

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 as well as the population including Armed Forces abroad for the United States for 2010–2017 are shown in **Table 3**. A detailed discussion of historical population bases is presented elsewhere [59].

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, or 2) for the Hispanic subgroups, a relative standard error of 23 percent or more for the ACS-based rates of 2010–2017. Rates based on populations below these minimum levels lack sufficient reliability for analytic purposes.

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” [59]. Adjusted rates for 2017 can be computed by multiplying the reported rates by ratios from the 2017 census-level population adjusted for the estimated age-specific census over- and undercounts.

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 2009 and have recently been revised and updated to

incorporate new rates for black women [60-63]. 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 [64].

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 1,765.5 in 2017, 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 2017, they would have a total of 1,765.5 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 [65]. 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 (*) indicates that the figure does not meet standards of reliability or precision. Two separate criteria are used to determine whether a figure, either a rate or proportion, meets these standards.

For a rate, an asterisk is shown in place of a rate based on fewer than 20 births in the numerator. Rates based on fewer than 20 births have a relative standard error (RSE) of about 23% or more and, therefore, are considered highly variable.

For a proportion (or percentage), new criteria have been adopted by NCHS [66]. For prior published proportion or percentages, an asterisk was shown in place of a proportion or percentage based on fewer than 20 births in the numerator, as rates are still currently based. The new criteria are based on denominator size and on the absolute or relative widths of the confidence interval of the proportion or percentage calculated using the Clopper–Pearson method. For detailed information on the new criteria, see “National Center for Health Statistics Data Presentation Standards for Proportions” [66].

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 User Guide to the 2010 Natality Public Use File [67].

Specified Hispanic population groups

For information and discussion on random variation and significance testing of birth and fertility rates for the specified Hispanic groups, see the User Guide to the 2016 Natality Public Use File [58].

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U.S. STANDARD CERTIFICATE OF LIVE BIRTH

LOCAL FILE NO.

BIRTH NUMBER:

C H I L D	1. CHILD'S NAME (First, Middle, Last, Suffix)		2. TIME OF BIRTH (24 hr)	3. SEX	4. DATE OF BIRTH (Mo/Day/Yr)
	5. FACILITY NAME (If not institution, give street and number)		6. CITY, TOWN, OR LOCATION OF BIRTH		7. COUNTY OF BIRTH
M O T H E R	8a. MOTHER'S CURRENT LEGAL NAME (First, Middle, Last, Suffix)			8b. DATE OF BIRTH (Mo/Day/Yr)	
	8c. MOTHER'S NAME PRIOR TO FIRST MARRIAGE (First, Middle, Last, Suffix)			8d. BIRTHPLACE (State, Territory, or Foreign Country)	
	9a. RESIDENCE OF MOTHER-STATE	9b. COUNTY		9c. CITY, TOWN, OR LOCATION	
	9d. STREET AND NUMBER		9e. APT. NO.	9f. ZIP CODE	
F A T H E R	10a. FATHER'S CURRENT LEGAL NAME (First, Middle, Last, Suffix)		10b. DATE OF BIRTH (Mo/Day/Yr)	10c. BIRTHPLACE (State, Territory, or Foreign Country)	
	11. CERTIFIER'S NAME: _____ TITLE: <input type="checkbox"/> MD <input type="checkbox"/> DO <input type="checkbox"/> HOSPITAL ADMIN. <input type="checkbox"/> CNM/CM <input type="checkbox"/> OTHER MIDWIFE <input type="checkbox"/> OTHER (Specify) _____		12. DATE CERTIFIED ____/____/____ MM DD YYYY		13. DATE FILED BY REGISTRAR ____/____/____ MM DD YYYY

INFORMATION FOR ADMINISTRATIVE USE

M O T H E R	14. MOTHER'S MAILING ADDRESS: 9 Same as residence, or: State: _____ City, Town, or Location: _____ Street & Number: _____ Apartment No.: _____ Zip Code: _____		
	15. MOTHER MARRIED? (At birth, conception, or any time between) <input type="checkbox"/> Yes <input type="checkbox"/> No IF NO, HAS PATERNITY ACKNOWLEDGEMENT BEEN SIGNED IN THE HOSPITAL? <input type="checkbox"/> Yes <input type="checkbox"/> No	16. SOCIAL SECURITY NUMBER REQUESTED FOR CHILD? <input type="checkbox"/> Yes <input type="checkbox"/> No	17. FACILITY ID. (NPI)
	18. MOTHER'S SOCIAL SECURITY NUMBER: _____		19. FATHER'S SOCIAL SECURITY NUMBER: _____

INFORMATION FOR MEDICAL AND HEALTH PURPOSES ONLY

M O T H E R	20. MOTHER'S EDUCATION (Check the box that best describes the highest degree or level of school completed at the time of delivery) <input type="checkbox"/> 8th grade or less <input type="checkbox"/> 9th - 12th grade, no diploma <input type="checkbox"/> High school graduate or GED completed <input type="checkbox"/> Some college credit but no degree <input type="checkbox"/> Associate degree (e.g., AA, AS) <input type="checkbox"/> Bachelor's degree (e.g., BA, AB, BS) <input type="checkbox"/> Master's degree (e.g., MA, MS, MEng, MEd, MSW, MBA) <input type="checkbox"/> Doctorate (e.g., PhD, EdD) or Professional degree (e.g., MD, DDS, DVM, LLB, JD)	21. MOTHER OF HISPANIC ORIGIN? (Check the box that best describes whether the mother is Spanish/Hispanic/Latina. Check the "No" box if mother is not Spanish/Hispanic/Latina) <input type="checkbox"/> No, not Spanish/Hispanic/Latina <input type="checkbox"/> Yes, Mexican, Mexican American, Chicana <input type="checkbox"/> Yes, Puerto Rican <input type="checkbox"/> Yes, Cuban <input type="checkbox"/> Yes, other Spanish/Hispanic/Latina (Specify) _____	22. MOTHER'S RACE (Check one or more races to indicate what the mother considers herself to be) <input type="checkbox"/> White <input type="checkbox"/> Black or African American <input type="checkbox"/> American Indian or Alaska Native (Name of the enrolled or principal tribe) _____ <input type="checkbox"/> Asian Indian <input type="checkbox"/> Chinese <input type="checkbox"/> Filipino <input type="checkbox"/> Japanese <input type="checkbox"/> Korean <input type="checkbox"/> Vietnamese <input type="checkbox"/> Other Asian (Specify) _____ <input type="checkbox"/> Native Hawaiian <input type="checkbox"/> Guamanian or Chamorro <input type="checkbox"/> Samoan <input type="checkbox"/> Other Pacific Islander (Specify) _____ <input type="checkbox"/> Other (Specify) _____
	F A T H E R	23. FATHER'S EDUCATION (Check the box that best describes the highest degree or level of school completed at the time of delivery) <input type="checkbox"/> 8th grade or less <input type="checkbox"/> 9th - 12th grade, no diploma <input type="checkbox"/> High school graduate or GED completed <input type="checkbox"/> Some college credit but no degree <input type="checkbox"/> Associate degree (e.g., AA, AS) <input type="checkbox"/> Bachelor's degree (e.g., BA, AB, BS) <input type="checkbox"/> Master's degree (e.g., MA, MS, MEng, MEd, MSW, MBA) <input type="checkbox"/> Doctorate (e.g., PhD, EdD) or Professional degree (e.g., MD, DDS, DVM, LLB, JD)	24. FATHER OF HISPANIC ORIGIN? (Check the box that best describes whether the father is Spanish/Hispanic/Latino. Check the "No" box if father is not Spanish/Hispanic/Latino) <input type="checkbox"/> No, not Spanish/Hispanic/Latino <input type="checkbox"/> Yes, Mexican, Mexican American, Chicano <input type="checkbox"/> Yes, Puerto Rican <input type="checkbox"/> Yes, Cuban <input type="checkbox"/> Yes, other Spanish/Hispanic/Latino (Specify) _____

Mother's Name

Mother's Medical Record No.

26. PLACE WHERE BIRTH OCCURRED (Check one) <input type="checkbox"/> Hospital <input type="checkbox"/> Freestanding birthing center <input type="checkbox"/> Home Birth: Planned to deliver at home? 9 Yes 9 No <input type="checkbox"/> Clinic/Doctor's office <input type="checkbox"/> Other (Specify) _____	27. ATTENDANT'S NAME, TITLE, AND NPI NAME: _____ NPI: _____ TITLE: <input type="checkbox"/> MD <input type="checkbox"/> DO <input type="checkbox"/> CNM/CM <input type="checkbox"/> OTHER MIDWIFE <input type="checkbox"/> OTHER (Specify) _____	28. MOTHER TRANSFERRED FOR MATERNAL MEDICAL OR FETAL INDICATIONS FOR DELIVERY? <input type="checkbox"/> Yes <input type="checkbox"/> No IF YES, ENTER NAME OF FACILITY MOTHER TRANSFERRED FROM: _____
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MOTHER	29a. DATE OF FIRST PRENATAL CARE VISIT MM / DD / YYYY <input type="checkbox"/> No Prenatal Care		29b. DATE OF LAST PRENATAL CARE VISIT MM / DD / YYYY		30. TOTAL NUMBER OF PRENATAL VISITS FOR THIS PREGNANCY _____ (If none, enter "0".)	
	31. MOTHER'S HEIGHT _____ (feet/inches)		32. MOTHER'S PREPREGNANCY WEIGHT _____ (pounds)		33. MOTHER'S WEIGHT AT DELIVERY _____ (pounds)	
	35. NUMBER OF PREVIOUS LIVE BIRTHS (Do not include this child)		36. NUMBER OF OTHER PREGNANCY OUTCOMES (spontaneous or induced losses or ectopic pregnancies)		37. CIGARETTE SMOKING BEFORE AND DURING PREGNANCY For each time period, enter either the number of cigarettes or the number of packs of cigarettes smoked. IF NONE, ENTER "0".	
	35a. Now Living Number _____ <input type="checkbox"/> None		35b. Now Dead Number _____ <input type="checkbox"/> None		36a. Other Outcomes Number _____ <input type="checkbox"/> None	
35c. DATE OF LAST LIVE BIRTH MM / YYYY		36b. DATE OF LAST OTHER PREGNANCY OUTCOME MM / YYYY		39. DATE LAST NORMAL MENSES BEGAN MM / DD / YYYY		
34. DID MOTHER GET WIC FOOD FOR HERSELF DURING THIS PREGNANCY? <input type="checkbox"/> Yes <input type="checkbox"/> No		38. PRINCIPAL SOURCE OF PAYMENT FOR THIS DELIVERY <input type="checkbox"/> Private Insurance <input type="checkbox"/> Medicaid <input type="checkbox"/> Self-pay <input type="checkbox"/> Other (Specify) _____		40. MOTHER'S MEDICAL RECORD NUMBER		
41. RISK FACTORS IN THIS PREGNANCY (Check all that apply)		43. OBSTETRIC PROCEDURES (Check all that apply)		46. METHOD OF DELIVERY		
Diabetes <input type="checkbox"/> Prepregnancy (Diagnosis prior to this pregnancy) <input type="checkbox"/> Gestational (Diagnosis in this pregnancy) Hypertension <input type="checkbox"/> Prepregnancy (Chronic) <input type="checkbox"/> Gestational (PIH, preeclampsia) <input type="checkbox"/> Eclampsia <input type="checkbox"/> Previous preterm birth <input type="checkbox"/> Other previous poor pregnancy outcome (Includes perinatal death, small-for-gestational age/intrauterine growth restricted birth) <input type="checkbox"/> Pregnancy resulted from infertility treatment-If yes, check all that apply: <input type="checkbox"/> Fertility-enhancing drugs, Artificial insemination or Intrauterine insemination <input type="checkbox"/> Assisted reproductive technology (e.g., in vitro fertilization (IVF), gamete intrafallopian transfer (GIFT)) <input type="checkbox"/> Mother had a previous cesarean delivery If yes, how many _____ <input type="checkbox"/> None of the above		<input type="checkbox"/> Cervical cerclage <input type="checkbox"/> Tocolysis External cephalic version: <input type="checkbox"/> Successful <input type="checkbox"/> Failed <input type="checkbox"/> None of the above		A. Was delivery with forceps attempted but unsuccessful? <input type="checkbox"/> Yes <input type="checkbox"/> No B. Was delivery with vacuum extraction attempted but unsuccessful? <input type="checkbox"/> Yes <input type="checkbox"/> No C. Fetal presentation at birth <input type="checkbox"/> Cephalic <input type="checkbox"/> Breech <input type="checkbox"/> Other D. Final route and method of delivery (Check one) <input type="checkbox"/> Vaginal/Spontaneous <input type="checkbox"/> Vaginal/Forceps <input type="checkbox"/> Vaginal/Vacuum <input type="checkbox"/> Cesarean If cesarean, was a trial of labor attempted? <input type="checkbox"/> Yes <input type="checkbox"/> No		
42. INFECTIONS PRESENT AND/OR TREATED DURING THIS PREGNANCY (Check all that apply)		44. ONSET OF LABOR (Check all that apply)		47. MATERNAL MORBIDITY (Check all that apply) (Complications associated with labor and delivery)		
<input type="checkbox"/> Gonorrhea <input type="checkbox"/> Syphilis <input type="checkbox"/> Chlamydia <input type="checkbox"/> Hepatitis B <input type="checkbox"/> Hepatitis C <input type="checkbox"/> None of the above		<input type="checkbox"/> Premature Rupture of the Membranes (prolonged, ≥12 hrs.) <input type="checkbox"/> Precipitous Labor (<3 hrs.) <input type="checkbox"/> Prolonged Labor (≥ 20 hrs.) <input type="checkbox"/> None of the above		<input type="checkbox"/> Maternal transfusion <input type="checkbox"/> Third or fourth degree perineal laceration <input type="checkbox"/> Ruptured uterus <input type="checkbox"/> Unplanned hysterectomy <input type="checkbox"/> Admission to intensive care unit <input type="checkbox"/> Unplanned operating room procedure following delivery <input type="checkbox"/> None of the above		
		45. CHARACTERISTICS OF LABOR AND DELIVERY (Check all that apply)				
		<input type="checkbox"/> Induction of labor <input type="checkbox"/> Augmentation of labor <input type="checkbox"/> Non-vertex presentation <input type="checkbox"/> Steroids (glucocorticoids) for fetal lung maturation received by the mother prior to delivery <input type="checkbox"/> Antibiotics received by the mother during labor <input type="checkbox"/> Clinical chorioamnionitis diagnosed during labor or maternal temperature ≥38°C (100.4°F) <input type="checkbox"/> Moderate/heavy meconium staining of the amniotic fluid <input type="checkbox"/> Fetal intolerance of labor such that one or more of the following actions was taken: in-utero resuscitative measures, further fetal assessment, or operative delivery <input type="checkbox"/> Epidural or spinal anesthesia during labor <input type="checkbox"/> None of the above				

NEWBORN INFORMATION

NEWBORN	48. NEWBORN MEDICAL RECORD NUMBER		54. ABNORMAL CONDITIONS OF THE NEWBORN (Check all that apply)		55. CONGENITAL ANOMALIES OF THE NEWBORN (Check all that apply)	
	49. BIRTHWEIGHT (grams preferred, specify unit) _____ 9 grams 9 lb/oz					
	50. OBSTETRIC ESTIMATE OF GESTATION: _____ (completed weeks)					
	51. APGAR SCORE: Score at 5 minutes: _____ If 5 minute score is less than 6, Score at 10 minutes: _____					
	52. PLURALITY - Single, Twin, Triplet, etc. (Specify) _____					
	53. IF NOT SINGLE BIRTH - Born First, Second, Third, etc. (Specify) _____					
56. WAS INFANT TRANSFERRED WITHIN 24 HOURS OF DELIVERY? <input type="checkbox"/> Yes <input type="checkbox"/> No IF YES, NAME OF FACILITY INFANT TRANSFERRED TO: _____		57. IS INFANT LIVING AT TIME OF REPORT? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Infant transferred, status unknown		58. IS THE INFANT BEING BREASTFED AT DISCHARGE? <input type="checkbox"/> Yes <input type="checkbox"/> No		

Mother's Name

Mother's Medical Record No.

Table A. Births by place of occurrence and residence for births occurring in the 50 states, the District of Columbia, and U.S. territories, 2017

Area	Number live births	
	Occurrence ¹	Residence ^{1,2}
United States	3,864,754	3,855,500
Alabama	57,469	58,941
Alaska	10,353	10,445
Arizona	82,829	81,872
Arkansas	36,179	37,520
California	472,820	471,658
Colorado	64,964	64,382
Connecticut	36,712	35,221
Delaware	11,265	10,855
District of Columbia	14,602	9,560
Florida	223,601	223,630
Georgia	130,183	129,243
Hawaii	17,519	17,517
Idaho	21,825	22,181
Illinois	145,700	149,390
Indiana	83,122	82,170
Iowa	38,284	38,430
Kansas	38,013	36,519
Kentucky	52,410	54,752
Louisiana	61,203	61,018
Maine	12,072	12,298
Maryland	68,154	71,641
Massachusetts	71,426	70,702
Michigan	110,449	111,426
Minnesota	67,545	68,595
Mississippi	36,563	37,357
Missouri	73,869	73,034
Montana	11,752	11,799
Nebraska	26,237	25,821
Nevada	35,466	35,756
New Hampshire	12,064	12,116
New Jersey	98,952	101,250
New Mexico	22,343	23,767

New York	230,358	229,737
North Carolina	122,103	120,125
North Dakota	12,391	10,737
Ohio	137,460	136,832
Oklahoma	48,833	50,214
Oregon	44,161	43,631
Pennsylvania	136,916	137,745
Rhode Island	11,198	10,638
South Carolina	53,579	57,029
South Dakota	12,809	12,134
Tennessee	86,721	81,016
Texas	390,053	382,050
Utah	49,651	48,585
Vermont	5,518	5,655
Virginia	99,475	100,391
Washington	87,331	87,562
West Virginia	19,252	18,675
Wisconsin	64,728	64,975
Wyoming	6,272	6,903

Births occurring to US territorial residents

Puerto Rico	---	24,310
Virgin Islands	---	---
Guam	---	3,297
American Samoa	---	977
Northern Marianas	---	363

--- Data not available.

¹ Excludes data for the territories.

² 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, 2017
 [By place of residence]

Reporting area	All births	Time of birth	Mother's birthplace	Education of mother	Education of father	Father's age	Father's race	Hispanic Origin	
								Mother	Father
Total of reporting areas ¹	3,855,500	0.0	0.2	1.3	14.0	11.8	18.1	0.8	13.0
Alabama	58,941	0.0	0.0	0.2	18.5	18.2	20.5	0.0	18.2
Alaska	10,445	0.0	0.2	1.5	15.3	10.3	15.6	1.2	15.6
Arizona	81,872	0.0	0.1	0.7	13.3	12.5	14.2	0.6	13.4
Arkansas	37,520	0.0	0.3	0.5	24.0	21.7	27.3	0.4	21.8
California	471,658	0.0	0.1	5.1	11.9	6.6	12.2	2.9	8.8
Colorado	64,382	-	0.2	1.4	8.7	6.4	12.8	1.5	7.8
Connecticut	35,221	0.0	0.1	0.3	8.9	8.7	14.7	0.1	8.8
Delaware	10,855	-	0.3	0.4	35.0	29.3	35.3	0.1	33.8
District of Columbia	9,560	-	0.7	0.6	24.7	23.3	33.5	0.1	23.9
Florida	223,630	0.0	0.3	1.1	14.7	12.3	22.5	0.3	14.2
Georgia	129,243	0.0	0.0	0.6	17.1	14.0	20.4	0.9	14.9
Hawaii	17,517	0.0	0.3	0.7	9.8	9.4	9.6	0.3	9.4
Idaho	22,181	0.0	0.3	0.5	10.2	8.3	16.1	0.4	10.0
Illinois	149,390	0.3	0.1	2.2	15.3	12.0	15.3	1.1	13.4
Indiana	82,170	0.0	0.3	0.2	12.4	11.2	14.7	0.0	12.3
Iowa	38,430	-	0.0	0.2	14.8	12.9	16.9	0.0	14.3
Kansas	36,519	-	0.1	0.3	9.5	9.1	13.6	0.1	9.2
Kentucky	54,752	0.0	0.2	0.5	19.7	17.5	21.0	0.3	17.8
Louisiana	61,018	-	0.0	0.7	15.5	14.4	20.2	0.0	14.7
Maine	12,298	0.0	0.1	0.2	9.7	9.5	9.9	0.0	13.3
Maryland	71,641	0.0	0.4	0.6	13.9	10.5	21.0	0.3	13.2
Massachusetts	70,702	-	0.0	3.8	10.7	7.4	12.3	2.5	5.8
Michigan	111,426	0.0	0.2	1.0	14.1	13.1	15.7	0.2	13.3
Minnesota	68,595	0.0	0.1	1.1	12.7	7.6	15.0	0.6	8.1
Mississippi	37,357	0.0	0.1	0.2	17.3	17.0	20.6	0.0	17.2
Missouri	73,034	0.0	0.7	0.4	16.1	15.5	18.1	0.4	15.7
Montana	11,799	-	0.0	0.4	10.4	9.3	11.5	0.3	9.4
Nebraska	25,821	0.0	0.1	0.0	10.8	9.6	20.7	0.1	10.5
Nevada	35,756	0.0	0.2	2.9	14.9	11.9	16.9	0.5	13.2
New Hampshire	12,116	-	0.1	0.5	7.8	5.9	9.9	0.5	6.0
New Jersey	101,250	-	0.1	0.7	7.7	6.7	17.1	1.5	8.2
New Mexico	23,767	-	0.1	0.2	17.4	17.2	18.5	0.3	16.1
New York (excluding NYC)	118,006	-	0.0	0.8	10.6	9.1	15.8	0.5	9.8
New York City	111,731	-	0.1	0.3	10.5	9.3	20.3	1.2	11.5
North Carolina	120,125	0.0	0.4	0.2	16.2	14.9	25.0	0.1	15.0
North Dakota	10,737	-	0.5	1.3	10.9	7.4	11.4	1.6	10.7
Ohio	136,832	0.0	0.5	0.3	17.1	16.5	19.4	0.2	16.8
Oklahoma	50,214	0.0	0.1	0.3	12.5	11.0	18.5	0.1	12.4
Oregon	43,631	0.0	0.0	0.5	9.7	8.4	13.9	0.7	9.9
Pennsylvania	137,745	0.0	0.4	0.7	12.9	11.9	19.0	1.0	12.9
Rhode Island	10,638	0.1	0.0	2.8	11.9	11.1	29.0	0.9	11.5
South Carolina	57,029	0.0	0.2	0.3	21.0	20.7	25.6	0.2	20.9
South Dakota	12,134	0.1	0.0	0.3	13.3	10.5	12.3	0.1	10.6
Tennessee	81,016	0.0	0.4	0.7	15.6	14.6	21.7	0.1	15.0
Texas	382,050	0.0	0.1	0.2	12.8	12.7	20.2	0.1	12.7
Utah	48,585	-	0.2	1.6	8.8	6.3	12.0	0.9	7.4
Vermont	5,655	-	0.0	0.6	9.2	6.0	9.4	0.9	9.4
Virginia	100,391	-	0.3	1.0	11.9	9.7	16.5	0.2	11.0
Washington	87,562	0.0	0.8	1.5	14.3	10.2	18.2	2.6	14.2
West Virginia	18,675	0.0	0.3	0.4	15.1	1.2	15.8	0.7	15.0
Wisconsin	64,975	0.0	0.1	0.5	37.6	36.2	38.2	0.5	37.4
Wyoming	6,903	-	0.1	0.7	13.4	12.7	16.7	1.7	14.8
Puerto Rico	24,310	0.0	0.0	0.0	6.3	5.8	7.6	0.2	6.4
Virgin Islands	---	---	---	---	---	---	---	---	---
Guam	3,297	0.1	1.0	1.6	21.2	19.6	24.1	0.7	21.1
American Samoa ²	977	---	55.0	---	---	40.0	40.0	---	---
Northern Marianas	363	0.3	0.6	2.5	14.0	13.5	13.8	0.8	14.6

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, 2017--Con.
 [By place of residence]

Reporting area	Place of birth	Attendant at birth	Month prenatal care began	Number of prenatal care visits	Mother's height	Mother's pre-pregnancy weight	Weight gain	Did mother get WIC food for herself during this pregnancy	Live-birth order
Total of reporting areas ¹	0.0	0.1	2.6	2.5	0.6	2.2	3.4	1.2	0.2
Alabama	0.0	0.0	0.5	0.6	0.3	1.8	3.2	0.6	0.0
Alaska	0.0	0.0	2.1	2.7	0.6	2.2	4.7	1.3	0.3
Arizona	0.0	0.0	2.3	1.7	0.1	0.3	0.5	1.3	0.1
Arkansas	-	0.0	5.5	5.4	1.4	5.7	9.3	1.4	2.2
California	0.0	0.1	1.2	1.2	0.9	2.2	3.0	0.5	0.1
Colorado	0.0	0.0	1.7	1.2	1.1	3.6	4.7	3.2	0.1
Connecticut	-	0.0	2.7	2.6	0.2	0.4	2.7	0.6	0.1
Delaware	0.0	-	1.6	0.9	0.5	1.1	2.4	1.3	0.0
District of Columbia	0.1	0.0	3.3	4.1	0.7	1.8	3.1	1.3	0.1
Florida	0.0	0.0	6.1	6.3	1.0	6.0	7.4	0.6	0.4
Georgia	0.0	0.0	1.8	1.6	0.6	1.1	1.9	1.1	0.3
Hawaii	-	0.3	6.6	8.5	0.9	4.2	5.6	5.7	-
Idaho	0.0	0.0	0.6	0.8	0.2	0.8	1.4	0.7	0.2
Illinois	0.0	0.1	4.4	4.5	0.8	6.4	7.2	3.6	0.3
Indiana	0.0	0.0	0.3	0.2	0.1	0.4	0.7	0.2	0.0
Iowa	-	0.0	0.6	0.6	0.1	0.3	1.1	0.1	0.0
Kansas	-	-	0.3	0.3	0.1	0.3	0.7	0.2	0.0
Kentucky	0.0	0.0	4.5	4.2	0.1	0.8	1.3	0.7	0.0
Louisiana	-	0.1	2.5	1.5	0.4	1.9	2.8	2.7	0.1
Maine	-	0.1	0.2	0.1	0.0	0.3	0.7	0.3	0.1
Maryland	0.0	0.1	4.7	4.5	1.1	2.7	4.5	1.3	0.2
Massachusetts	0.0	0.0	1.3	1.7	0.2	2.1	2.5	2.1	0.2
Michigan	0.0	0.0	3.0	3.0	0.6	2.7	3.6	1.4	0.1
Minnesota	0.0	0.4	1.0	1.1	0.5	1.9	3.1	0.6	0.2
Mississippi	-	0.0	0.8	0.5	0.1	0.4	1.0	0.2	0.0
Missouri	0.0	0.0	6.0	6.0	0.6	1.0	3.5	2.2	0.5
Montana	-	0.0	0.3	0.3	0.2	0.6	1.0	0.7	0.0
Nebraska	-	0.0	2.4	2.5	0.2	0.8	2.0	0.5	0.2
Nevada	-	-	5.9	5.8	0.1	2.9	3.8	2.0	0.1
New Hampshire	0.0	-	0.4	0.3	0.6	2.7	3.6	1.7	0.2
New Jersey	-	0.0	1.5	0.5	0.0	0.5	1.0	0.2	0.0
New Mexico	-	0.0	2.3	0.8	0.3	1.2	1.9	0.6	0.3
New York (excluding NYC)	0.0	0.1	2.6	3.8	1.6	4.4	5.3	2.7	1.0
New York City	-	0.0	2.1	2.0	0.1	0.5	0.8	0.6	0.1
North Carolina	0.0	0.4	0.7	0.7	0.2	2.0	3.5	0.2	0.0
North Dakota	0.0	0.7	4.8	4.5	0.1	0.9	1.2	1.0	0.1
Ohio	-	0.0	1.1	1.3	0.2	1.0	2.2	0.6	0.3
Oklahoma	-	0.0	2.3	2.2	0.2	0.9	1.8	1.5	0.1
Oregon	-	-	0.8	0.9	0.1	0.9	1.4	1.8	0.2
Pennsylvania	0.0	0.0	2.6	3.2	0.9	6.1	11.5	2.3	0.5
Rhode Island	0.0	0.0	4.3	26.1	2.9	5.2	7.8	3.4	2.1
South Carolina	-	0.1	0.2	0.1	0.5	1.0	1.7	1.5	0.0
South Dakota	-	0.0	1.3	1.2	0.2	0.8	1.3	0.7	0.0
Tennessee	0.0	0.4	6.5	8.1	0.9	2.3	5.7	0.1	1.1
Texas	0.0	0.1	1.5	1.2	0.1	0.4	0.7	0.1	0.0
Utah	-	0.0	1.3	1.4	0.5	1.1	2.0	2.9	0.0
Vermont	0.1	-	0.4	0.4	0.2	1.2	1.8	1.8	0.1
Virginia	0.0	0.0	6.3	1.0	0.9	2.1	2.6	2.4	0.1
Washington	0.0	0.0	5.8	7.5	0.8	3.7	6.7	2.7	1.1
West Virginia	0.0	0.2	1.3	1.6	0.3	0.9	3.7	1.1	0.6
Wisconsin	-	0.0	3.1	3.9	0.3	1.8	3.3	1.1	0.2
Wyoming	-	0.0	1.4	0.9	0.5	0.6	1.3	0.2	0.0
Puerto Rico	-	0.1	0.1	0.1	0.1	0.0	0.4	0.2	0.2
Virgin Islands	---	---	---	---	---	---	---	---	---
Guam	0.1	0.0	11.8	11.2	2.6	8.2	9.4	3.8	0.2
American Samoa ²	-	2.1	---	---	---	---	---	---	-
Northern Marianas	-	-	0.8	0.3	0.6	2.8	5.2	1.4	1.9

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, 2017--Con.
 [By place of residence]

Reporting areas	Birth interval	Cigarette smoking before and during pregnancy	Source of payment ³	Risk Factors in this Pregnancy	Infections present	Obstetric Procedures	Characteristics of labor and delivery	Method of delivery	
								Fetal presentation	Final route and method of delivery
Total of reporting areas ¹	3.3	0.5	0.6	0.1	0.3	0.1	0.1	0.4	0.1
Alabama	2.1	0.3	0.1	0.0	0.0	0.0	0.0	0.1	0.0
Alaska	3.0	2.1	1.7	1.0	1.1	0.8	0.4	0.0	0.0
Arizona	0.4	0.2	0.2	-	0.0	-	-	0.1	0.0
Arkansas	7.3	2.1	1.4	0.0	0.0	0.0	0.0	0.1	0.0
California	0.5	0.5	0.1	0.0	0.0	0.0	0.0	0.9	0.0
Colorado	5.9	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Connecticut	2.6	0.1	0.2	0.8	0.7	0.7	0.7	0.3	0.1
Delaware	3.9	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
District of Columbia	3.0	0.6	0.2	0.0	0.0	0.1	0.1	0.3	0.0
Florida	2.6	0.8	0.4	0.2	1.1	0.1	0.2	0.7	0.0
Georgia	2.5	0.2	0.2	0.3	0.4	0.4	0.2	0.5	0.1
Hawaii	2.2	1.6	0.1	-	-	-	-	3.0	-
Idaho	0.7	0.2	0.1	0.1	0.2	0.0	0.0	0.1	0.0
Illinois	4.0	0.3	0.5	0.2	0.3	0.2	0.1	0.4	0.0
Indiana	1.2	0.0	0.2	0.0	0.0	0.0	0.0	0.2	0.0
Iowa	1.4	0.0	0.1	0.0	0.0	0.0	-	0.0	-
Kansas	0.4	0.2	0.3	-	0.0	-	-	0.0	-
Kentucky	2.3	0.8	0.8	0.4	0.4	0.4	0.3	0.5	0.1
Louisiana	2.3	0.8	0.0	-	-	-	-	-	-
Maine	0.8	0.1	0.3	0.0	0.4	0.0	0.0	0.1	0.0
Maryland	5.0	0.4	0.5	0.1	0.1	0.0	0.0	0.3	0.1
Massachusetts	2.1	0.0	0.1	0.1	0.1	0.1	0.1	0.3	0.1
Michigan	1.8	0.8	0.3	0.3	1.3	0.2	0.1	0.8	0.0
Minnesota	1.6	0.7	0.2	0.2	0.3	0.1	0.1	0.2	0.0
Mississippi	0.3	0.2	0.1	0.0	0.0	-	-	0.1	-
Missouri	5.2	1.0	1.4	-	0.0	-	-	1.0	0.3
Montana	0.7	0.6	0.2	0.1	0.2	0.1	0.1	0.0	0.2
Nebraska	4.5	0.1	1.2	0.1	0.1	0.1	0.0	0.0	-
Nevada	2.7	0.8	0.7	-	0.0	-	-	0.0	-
New Hampshire	0.8	0.8	0.7	0.4	0.2	0.2	0.1	0.0	0.0
New Jersey	9.0	0.5	0.0	0.0	0.0	0.1	0.0	0.0	0.0
New Mexico	7.6	0.4	0.1	-	0.9	0.0	-	0.1	0.0
New York (excluding NYC)	7.3	0.2	0.4	0.3	0.9	0.7	0.0	0.5	0.4
New York City	6.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0
North Carolina	1.5	0.0	0.1	0.0	0.4	0.0	0.0	0.0	0.0
North Dakota	3.8	0.8	1.3	0.0	0.0	0.0	0.0	-	-
Ohio ⁹	2.2	0.1	0.7	0.0	0.0	0.0	0.0	0.2	0.0
Oklahoma	3.3	0.1	0.2	0.0	0.0	0.0	0.0	0.0	-
Oregon	1.7	0.4	0.3	-	0.0	-	0.0	0.1	-
Pennsylvania	10.1	1.4	3.3	0.0	0.0	0.0	0.0	0.0	0.0
Rhode Island	8.7	2.1	0.1	0.0	-	0.0	0.0	0.0	0.0
South Carolina	3.6	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0
South Dakota	2.5	0.4	0.4	0.0	0.1	0.0	0.0	0.0	-
Tennessee	7.4	0.8	5.3	0.1	0.1	0.1	0.1	0.0	0.0
Texas	3.4	0.0	0.2	0.0	0.0	0.0	0.0	0.3	0.1
Utah	0.4	0.3	3.2	0.0	-	-	-	-	-
Vermont	3.3	1.2	0.2	-	-	0.0	0.0	0.4	-
Virginia	2.0	1.1	0.2	0.0	0.0	-	-	1.5	0.0
Washington	6.7	1.3	1.6	0.4	0.5	0.6	0.4	0.7	0.2
West Virginia	5.3	0.7	0.6	0.5	1.5	0.8	0.3	-	0.0
Wisconsin	2.1	0.7	1.3	0.3	1.8	0.2	0.1	0.7	0.1
Wyoming	5.2	2.4	0.4	0.0	0.0	0.0	0.0	0.0	-
Puerto Rico	0.4	0.3	0.4	0.3	0.6	1.6	1.7	0.6	0.0
Virgin Islands	---	---	---	---	---	---	---	---	---
Guam	3.2	2.4	3.2	0.5	1.3	1.1	0.5	3.8	0.7
American Samoa ²	---	---	---	---	---	---	---	---	---
Northern Marianas	1.9	0.3	1.4	0.3	2.2	1.4	0.8	2.2	0.8

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, 2017--Con.
[By place of residence]

Reporting area	Maternal morbidity	Birthweight	Obstetric estimate of gestation	Apgar score		Abnormal conditions	Congenital anomalies of the newborn	Infant breastfed ⁴
				5-minute	10-minute			
Total of reporting areas ¹	0.1	-	0.1	0.4	0.4	0.1	0.1	1.0
Alabama	0.0	0.1	0.1	0.3	0.3	0.0	0.0	0.3
Alaska	0.6	0.0	0.0	0.6	0.6	0.8	-	0.7
Arizona	-	0.1	0.2	0.2	0.2	-	-	1.4
Arkansas	0.0	0.1	0.0	0.3	0.3	0.0	0.0	3.3
California	0.0	0.0	0.1	0.6	0.8	0.0	0.0	---
Colorado	0.0	0.0	0.0	0.4	0.4	0.1	0.1	0.0
Connecticut	0.9	0.0	0.1	0.2	0.2	0.0	0.0	3.9
Delaware	0.0	0.0	0.1	0.2	0.3	-	-	0.6
District of Columbia	0.0	0.0	0.0	1.0	1.2	-	-	0.2
Florida	0.1	0.0	0.1	0.4	0.4	0.2	0.4	0.7
Georgia	0.4	0.1	0.0	0.3	0.4	0.2	0.2	0.9
Hawaii	-	0.1	0.1	0.4	0.4	0.0	0.0	1.4
Idaho	0.0	0.1	0.0	0.6	0.6	0.1	0.1	0.4
Illinois	0.2	0.1	0.1	0.2	0.2	0.2	0.3	0.6
Indiana	0.0	0.1	0.0	0.3	0.3	0.0	0.0	0.1
Iowa	0.0	0.0	0.0	0.3	0.3	-	0.0	0.2
Kansas	0.0	0.1	0.0	0.3	0.4	-	0.0	0.4
Kentucky	0.5	0.0	0.0	0.4	0.4	0.6	0.8	0.6
Louisiana	-	0.0	0.0	0.2	0.2	-	-	2.3
Maine	0.1	0.0	0.0	0.2	0.3	0.2	0.2	2.5
Maryland	0.0	0.1	0.1	0.3	0.4	0.0	0.1	0.1
Massachusetts	0.1	0.2	0.1	0.3	0.3	0.1	0.1	0.3
Michigan	0.2	0.1	0.0	0.2	0.3	0.1	0.2	---
Minnesota	0.1	0.1	0.1	0.3	0.4	0.0	0.1	0.6
Mississippi	0.0	0.0	0.0	0.7	0.7	0.0	0.0	0.3
Missouri	0.0	0.1	0.1	0.6	0.6	-	0.0	2.5
Montana	0.1	0.1	0.0	0.3	0.3	0.1	0.1	0.3
Nebraska	0.0	0.0	0.1	0.2	0.2	0.0	0.1	0.7
Nevada	0.0	0.0	0.0	0.2	0.2	-	-	3.3
New Hampshire	0.6	0.0	0.2	0.3	0.4	0.7	0.9	0.6
New Jersey	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.1
New Mexico	-	0.1	0.0	0.1	0.1	-	0.0	0.9
New York (excluding NYC)	0.6	0.3	0.3	0.7	0.7	0.5	0.4	0.9
New York City	0.1	0.0	0.0	0.3	0.3	0.0	0.4	0.1
North Carolina	0.0	0.1	0.0	0.4	0.4	0.0	0.0	0.0
North Dakota	-	0.0	0.1	0.3	0.3	-	0.0	1.9
Ohio	0.0	0.1	0.1	0.3	0.4	0.0	0.0	0.5
Oklahoma	0.0	0.0	0.1	0.1	0.2	0.0	0.0	0.9
Oregon	0.8	0.0	0.0	0.2	0.2	-	0.0	1.4
Pennsylvania	0.0	0.3	0.2	0.5	0.6	0.0	0.0	2.8
Rhode Island	0.0	0.1	0.1	0.3	0.3	0.8	0.4	1.6
South Carolina	0.0	0.0	0.0	0.3	0.3	0.0	0.0	0.2
South Dakota	0.0	0.1	0.1	0.4	0.4	0.0	-	0.5
Tennessee	0.1	0.3	0.2	0.8	0.9	0.1	0.1	3.5
Texas	0.0	0.1	0.1	0.4	0.4	-	0.0	0.3
Utah	-	0.0	0.0	0.3	0.4	-	0.0	0.1
Vermont	0.0	0.1	0.1	0.7	0.7	-	-	0.4
Virginia	0.0	0.0	0.0	0.3	0.5	0.0	0.0	0.9
Washington	0.5	0.1	0.1	0.5	0.5	0.5	0.5	1.4
West Virginia	1.0	0.0	0.1	0.3	0.3	0.5	0.0	4.4
Wisconsin	0.1	0.1	0.1	0.5	0.5	0.2	1.1	5.4
Wyoming	0.0	-	-	0.2	0.2	-	-	0.4
Puerto Rico	1.5	0.0	0.0	0.3	0.3	0.3	0.4	0.5
Virgin Islands	---	---	---	---	---	---	---	---
Guam	1.0	0.5	0.4	0.5	1.6	0.6	0.8	4.2
American Samoa ²	---	0.2	---	---	---	---	---	---
Northern Marianas	1.1	1.9	1.1	2.5	4.1	2.5	2.8	3.0

0.0 Quantity more than zero but less than 0.05.

---Data not available.

- Quantity zero.

¹ Excludes data for Puerto Rico, Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Marianas.

² American Samoa has not yet adopted the 2003 U.S. Standard Certificate of Live Birth.

³ Expanded source of payment categories reported by 37 states; see Detailed technical notes.

⁴ California and Michigan do not report infant breastfed. See Detailed technical notes.

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, 2017

[Populations estimated as of July 1]

Race and Hispanic origin	Total population	Female population										
		15-44 years	10-14 years	15-19 years								
				Total	15-17 years	18-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years
All races and origins\1	325,719,178	63,958,243	10,173,382	10,331,169	6,181,237	4,149,932	10,769,493	11,468,230	10,883,081	10,616,012	9,890,258	10,587,683
Non-Hispanic, single-race\2												
White	197,803,083	35,207,104	5,209,249	5,475,521	3,256,998	2,218,523	5,784,830	6,295,023	6,116,259	5,965,871	5,569,600	6,418,298
Black	40,652,365	8,950,528	1,390,562	1,460,953	870,504	590,449	1,580,825	1,697,780	1,465,803	1,429,256	1,315,911	1,382,655
American Indian or Alaska	2,403,292	508,994	87,149	88,736	52,814	35,922	92,162	96,201	83,549	77,078	71,268	74,285
Asian	18,398,646	4,378,984	522,778	535,523	316,202	219,321	637,607	804,230	829,738	804,302	767,584	727,212
Native Hawaiian or Pacific	576,773	132,096	20,427	19,828	11,904	7,924	21,540	24,952	24,515	22,240	19,021	18,266
Hispanic\3												
Total	58,946,729	13,289,992	2,535,940	2,396,297	1,455,689	940,608	2,337,914	2,281,205	2,149,865	2,130,340	1,994,371	1,826,427
Mexican	---	---	---	---	---	---	---	---	---	---	---	---
Puerto Rican	---	---	---	---	---	---	---	---	---	---	---	---
Cuban	---	---	---	---	---	---	---	---	---	---	---	---
Other Hispanic\4	---	---	---	---	---	---	---	---	---	---	---	---

--- Data not available.

- 1 Includes population estimates of race and origin groups not shown separately, such as Hispanic single-race white, Hispanic single-race black, and non-Hispanic multiple-race people.
- 2 Persons of non-Hispanic origin may be of any race. Race categories are consistent with the 1997 Office of Management and Budget (OMB) standards. Single-race is defined as only one race reported.
- 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." 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, 2017). Population estimates for Hispanic total are based on the 2010 census, as of July 1, 2017. Population estimates by specified Hispanic origin in this table may not add to population estimates for total Hispanic. Standard errors are shown in parentheses below each population estimate.

SOURCE: U.S. Census Bureau. See reference 52.

Table 2. Estimated total population, female population aged 15-44 years, and age-specific female population: United States, each state, and territory: July 1, 2017

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	325,719,178	63,958,243	10,173,382	10,331,169	6,181,237	4,149,932	10,769,493	11,468,230	10,883,081	10,616,012	9,890,258	10,587,683
Alabama	4,874,747	949,949	150,981	157,072	94,492	62,580	163,231	170,408	154,552	155,256	149,430	161,003
Alaska	739,795	146,072	24,147	22,093	14,184	7,909	23,268	29,020	27,136	24,136	20,419	21,134
Arizona	7,016,270	1,345,764	228,588	228,331	137,213	91,118	231,880	240,414	220,283	218,635	206,221	214,562
Arkansas	3,004,279	577,447	97,198	96,842	58,357	38,485	99,472	102,087	94,889	94,858	89,299	93,194
California	39,536,653	8,104,632	1,245,910	1,254,099	749,073	505,026	1,338,452	1,513,117	1,405,834	1,337,511	1,255,619	1,306,528
Colorado	5,607,154	1,137,745	177,417	172,981	103,821	69,160	178,981	210,878	205,888	195,146	173,871	179,379
Connecticut	3,588,184	672,949	107,988	119,770	68,658	51,112	119,875	107,181	110,387	109,749	105,987	125,675
Delaware	961,939	180,343	28,503	29,906	17,209	12,697	29,361	33,919	30,558	29,574	27,025	30,992
District of Columbia	693,972	186,464	13,740	19,418	7,830	11,588	29,102	44,895	41,413	30,405	21,231	19,314
Florida	20,984,400	3,828,199	577,916	587,833	358,833	229,000	618,724	697,702	654,015	643,110	626,815	683,559
Georgia	10,429,379	2,147,399	355,022	354,918	215,678	139,240	351,620	378,396	355,148	360,108	347,209	368,278
Hawaii	1,427,538	265,924	39,563	37,287	23,036	14,251	41,729	49,533	49,027	46,850	41,498	43,342
Idaho	1,716,943	328,941	62,542	59,434	37,010	22,424	53,648	56,481	54,400	55,557	49,421	49,647
Illinois	12,802,023	2,532,027	404,458	408,244	248,773	159,471	425,727	445,164	432,355	425,670	394,867	420,728
Indiana	6,666,818	1,295,622	217,903	223,054	133,862	89,192	231,403	223,686	208,517	210,822	198,140	210,403
Iowa	3,145,711	592,278	100,938	104,979	60,394	44,585	110,509	97,340	95,620	97,879	85,951	91,634
Kansas	2,913,123	558,606	98,015	97,943	57,943	38,768	102,116	92,831	93,590	92,005	81,353	83,832
Kentucky	4,454,189	848,472	139,244	140,011	83,794	56,217	145,649	150,402	136,646	141,288	134,476	145,115
Louisiana	4,684,333	936,106	150,117	146,946	90,456	56,490	156,533	175,232	164,800	156,523	136,072	143,695
Maine	1,335,907	231,535	35,696	38,473	22,422	16,051	37,439	39,529	39,264	38,998	37,832	44,772
Maryland	6,052,177	1,193,286	184,885	188,265	112,892	75,373	189,678	210,016	211,334	205,159	188,834	212,447
Massachusetts	6,859,819	1,381,812	191,473	226,569	121,731	104,838	247,031	247,423	237,813	218,232	204,744	234,305
Michigan	9,962,311	1,874,298	323,738	323,738	192,456	131,282	342,820	330,759	294,358	297,864	284,759	324,169
Minnesota	5,576,606	1,066,806	179,935	174,958	105,323	69,635	179,390	180,704	189,679	184,352	157,723	170,302
Mississippi	2,984,100	591,744	101,191	101,191	60,284	40,907	103,367	104,073	95,348	96,987	90,778	95,996
Missouri	6,113,532	1,171,775	191,176	191,316	115,494	75,822	202,180	209,567	199,156	194,232	175,324	189,181
Montana	1,050,493	190,089	31,262	30,363	18,388	11,975	34,367	33,372	32,191	31,839	27,957	29,262
Nebraska	1,920,076	370,172	64,762	63,964	37,967	25,997	67,285	60,935	62,755	61,458	53,775	54,372
Nevada	2,998,039	589,149	94,910	86,909	55,430	31,479	89,416	111,106	105,156	101,697	94,865	99,352
New Hampshire	1,342,795	241,346	41,865	41,865	23,695	18,170	44,306	39,701	39,303	38,447	37,724	46,578
New Jersey	9,005,644	1,715,123	277,127	276,014	171,307	104,707	279,882	286,968	289,914	296,057	286,288	318,911
New Mexico	2,088,070	395,286	68,679	67,846	40,983	26,863	68,840	69,164	67,047	64,175	58,214	60,664
New York	19,849,399	4,001,053	558,695	600,098	349,275	250,823	680,026	762,735	706,031	650,645	601,518	661,197
North Carolina	10,273,419	2,016,657	322,735	331,778	197,125	134,653	334,435	357,172	332,287	334,237	326,748	356,429
North Dakota	755,393	146,282	22,587	22,705	12,615	10,090	30,303	27,373	24,578	22,682	18,641	19,015
Ohio	11,658,609	2,203,285	361,409	374,594	224,109	150,485	376,337	394,315	363,259	358,962	335,818	375,535
Oklahoma	3,930,864	768,751	131,063	127,864	77,515	50,349	131,774	138,274	130,846	126,781	113,212	116,031
Oregon	4,142,776	810,399	120,194	120,366	72,365	48,001	129,632	146,156	143,258	142,805	128,182	130,282
Pennsylvania	12,805,537	2,383,721	368,969	399,719	229,469	170,250	409,452	426,344	403,574	384,857	359,775	412,831
Rhode Island	1,059,639	209,072	29,084	29,084	18,325	18,124	39,130	37,298	33,990	32,209	29,996	35,166
South Carolina	5,024,369	965,704	154,120	157,183	93,238	63,945	161,521	177,386	159,746	158,912	150,956	164,206
South Dakota	869,666	158,874	28,909	27,226	16,116	11,110	28,463	27,289	27,118	26,372	22,406	23,216
Tennessee	6,715,984	1,312,517	208,860	207,240	126,573	80,667	220,953	242,464	218,514	216,812	206,534	224,779
Texas	28,304,596	5,885,855	1,012,736	978,094	602,339	375,755	962,303	1,035,086	1,009,319	982,601	918,452	917,835
Utah	3,101,833	675,124	127,051	118,837	72,960	45,877	123,890	117,124	107,879	112,466	94,928	82,494
Vermont	623,657	113,854	20,438	20,438	16,429	10,070	22,429	17,640	18,180	18,175	16,992	20,054
Virginia	8,470,020	1,681,168	257,113	265,153	155,782	109,371	280,468	294,960	290,404	285,670	264,513	287,360
Washington	7,405,743	1,464,754	216,216	221,744	132,386	83,830	229,578	274,047	265,845	253,594	225,474	235,643
West Virginia	1,815,857	322,254	50,892	52,305	31,351	20,954	55,830	55,097	50,271	54,758	53,993	58,446
Wisconsin	5,795,483	1,083,819	179,858	186,254	109,846	76,408	197,742	176,576	180,338	180,468	162,441	179,081
Wyoming	579,315	107,740	18,800	17,250	10,492	6,758	17,946	18,891	19,268	18,427	15,958	15,758
Puerto Rico	3,337,177	657,571	96,367	108,875	64,675	44,200	115,188	113,419	99,844	110,565	109,680	112,821
Virgin Islands	107,268	19,475	3,475	2,991	1,802	1,189	3,163	3,251	3,808	2,956	3,306	3,852
Guam	167,358	33,191	6,845	6,726	4,205	6,255	2,521	5,757	5,004	4,638	4,811	5,151
American Samoa	51,504	11,149	2,689	2,395	1,533	862	2,436	1,968	1,500	1,410	1,440	1,558
Northern Marianas	52,263	9,159	2,382	2,052	1,296	756	1,755	1,136	1,020	1,429	1,767	2,555

SOURCE: U.S. Census Bureau. See references 52, 53, and 54.

Table 3. Population of the United States, 2010-2017

[Population enumerated as of April 1 for 2010 and estimated as of July 1 for all other years]

Year	United States	
	Population including Armed Forces abroad	Population residing in area
2017	325,939,372	325,719,178
2016	323,348,770	323,127,513
2015	321,654,360	321,418,820
2014	319,133,003	318,857,056
2013	316,432,767	316,128,839
2012	314,250,437	313,914,040
2011	312,008,762	311,591,917
2010	309,178,489	308,745,538

SOURCE: Published data from the U.S. Census Bureau; see reference 53.

Documentation Table 1. Number and percentage of live births by race and Hispanic origin of mother: United States, 2017

Race	Number		Percentage	
	Total	Non-Hispanic	Total\1	Non-Hispanic
All races\2	3,855,500	2,924,228	100.0	100.0
One race	3,756,464	2,841,809	97.4	97.2
White	2,812,267	1,992,461	72.9	68.1
Black	626,027	560,715	16.2	19.2
American Indian and Alaska Native (AIAN)	36,382	29,957	0.9	1.0
Asian	270,208	249,250	7.0	8.5
Native Hawaiian and Other Pacific Islander (NHOPI)	11,580	9,426	0.3	0.3
More than one race	99,036	82,419	2.6	2.8
Two races	89,427	75,011	2.3	2.6
Black and White	38,498	32,220	1.0	1.1
Black and AIAN	3,128	2,669	0.1	0.1
Black and Asian	2,499	2,295	0.1	0.1
Black and NHOPI	574	502	0.0	0.0
AIAN and White	18,510	14,918	0.5	0.5
AIAN and Asian	386	285	0.0	0.0
AIAN and NHOPI	144	114	0.0	0.0
Asian and White	20,634	17,805	0.5	0.6
Asian and NHOPI	2,217	2,073	0.1	0.1
NHOPI and White	2,837	2,130	0.1	0.1
Three races	9,102	7,097	0.2	0.2
Black, AIAN and White	3,373	2,768	0.1	0.1
Black AIAN and Asian	142	121	0.0	0.0
Black, AIAN and NHOPI	33	26	0.0	0.0
Black, Asian and White	944	752	0.0	0.0
Black, Asian and NHOPI	103	92	0.0	0.0
Black, NHOPI, and White	195	153	0.0	0.0
AIAN, Asian and White	543	380	0.0	0.0
AIAN, NHOPI and White	139	90	0.0	0.0
AIAN, Asian and NHOPI	35	24	0.0	0.0
Asian, NHOPI and White	3,595	2,691	0.1	0.1
Four races	482	299	0.0	0.0
Black, AIAN, Asian and White	147	116	0.0	0.0
Black, AIAN, Asian, and NHOPI	12	9	*	*
Black, AIAN, NHOPI and White	42	29	0.0	0.0
Black, Asian, NHOPI and White	86	50	0.0	0.0
AIAN, Asian, NHOPI and White	195	95	0.0	0.0
Five races				
Black, AIAN, Asian, NHOPI and White	25	12	0.0	*

0.0 Quantity more than zero but less than 0.5.

* Figure does not meet standards of reliability or precision based on NCHS data presentation standards for proportions (see reference 66).

\1 Includes births to race and origin groups not shown separately, such as Hispanic, single-race white, Hispanic, single-race black, and non-Hispanic, multiple-race women, and births with origin not stated.

\2 Race and Hispanic origin are reported separately on birth certificates. Persons of Hispanic origin may be of any race. In this table, non-Hispanic women are classified by race. Race categories are consistent with the 1997 Office of Management and Budget standards.

NOTE: Race categories are consistent with the 1997 Office of Management and Budget standards.