# User Guide to the 2021 Natality Public Use File



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### **Control Count of Records**

# 2021 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	3,669,928	23,448
By occurrence	3,669,928	23,448
By residence	3,664,292	23,400
To foreign residents	5,636	48

# 2021 Natality Public Use File Documentation

Position	Length	Field	Description	Values	Definition
1-8	6	FILLER	Filler	Blank	
9-12	4	DOB_YY	Birth Year	2021	Year of birth
13-14	2	DOB_MM	Birth Month	01 02 03 04 05 06 07 08 09 10 11	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	0000-235 9999	59 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	

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 39 years 40 years 41 years 42 years 43 years

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
			5	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
					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
0.7.100	10				Camado Na de 1 de Camado
85-103	19	FILLER	Filler	Blank	
104	1	RESTATUS	Residence Status		
			United States	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.
					restanted are the same out country is unforcit.

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.  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 2 3 4	RESIDENT: State and county of occurrence and residence residence are the same. (Unique to Guam, all US residents are considered residents of Guam and thus are assigned 1.) INTRATERRITORY NONRESIDENT: Territory of occurrence and residence are the same but county is different. INTERTERRITORY RESIDENT: Territory of occurrence and residence are different but both are US Territories. FOREIGN RESIDENT: The residence is not a US Territory.
105-106	2 MRACE31	Mother's Race Recode 31  United States and all Outlying Areas of the United States except Puerto Rico	01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	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 Black and AIAN Black and Asian Black and NHOPI AIAN and White AIAN and White AIAN and NHOPI Asian and White Asian and NHOPI NHOPI and White Black, AIAN, and White Black, AIAN, and White Black, AIAN, and NHOPI Black, Asian, and White Black, Asian, and White AIAN, Asian, and White AIAN, Asian, and White AIAN, Asian, and White AIAN, Asian, and White Black, AIAN, NHOPI, and White Black, AIAN, NHOPI, and White Black, AIAN, NHOPI, and White Black, ASian, NHOPI, and White

P	osition	Length	Field	Description	Values	Definition
					31	Black, AIAN, Asian, NHOPI, and White
10	07	2	MRACE6	Mother's Race Recode 6		
-	•	-	marezo	United States and all Outlying Areas of	1	White (only)
				the United States except Puerto Rico	2	Black (only)
				<del></del>	3	AIAN (only)
					4	Asian (only)
					5	NHOPI (only)
					6	More than one race
10	08-109	2	MRACE15	Mother's Race Recode 15		
				United States and all Outlying Areas of	01	White (only)
				the United States except Puerto Rico	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)
					12	Guamanian (only)
					13	Samoan (only)
					14	Other Pacific Islander (only)
					15	More than one race
1	10	1	FILLER	Filler	Blank	
1	11	1	MRACEIMP	Mother's Race Imputed Flag	Blank	Mother's race not imputed
					1	Unknown race imputed
					2	All other races, formerly coded 09, imputed.
	4.0					
1	12	1	MHISPX	Mother's Hispanic Origin	0	Non-Hispanic
					1	Mexican
					2	Puerto Rican
					3	Cuban
					4	Central or South American
					5	Dominican Other and Unknown Hispanic
					6 9	Origin unknown or not stated
						Origin unknown or not stated
1	13-114	2	FILLER	Filler	Blank	
1	15	1	MHISP_R	Mother's Hispanic Origin Recode	0	Non-Hispanic
	- 0					

Position	Length	Field	Description	Values	Definition
				1	Mexican
				2	Puerto Rican
				3	Cuban
				4	Central and South American
				5	Other and Unknown Hispanic origin
				9	Hispanic origin not stated
116	1	F_MHISP	Reporting Flag for Mother's Origin	0	Non-Reporting
				1	Reporting
117	1	MRACEHISP	Mother's Race/Hispanic Origin	1	Non-Hispanic White (only)
			Based on single/multiple-race (fields 105-106, 107, and	2	Non-Hispanic Black (only)
			108-109).	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
118	1	FILLER	Filler	Blank	
119	1	MAR P	Paternity Acknowledged	Y	Yes
				N	No
				U	Unknown
				X	Not Applicable
120	1	DMAR	Marital Status		
120	1	DWAK	United States and all Outlying Areas of	1	Married
			the United States except Puerto Rico	2	Unmarried
			the Offied States except Puerto Rico	2	Unmarried
			Puerto Rico	1	Yes
				2	Unmarried parents living together
				3	Unmarried parents not living together
				9	Unknown or not stated
121	1	MAR_IMP	Mother's Marital Status Imputed	Blank	Marital Status not imputed
				1	Marital Status imputed
122	1	FILLER	Filler	Blank	
123	1	F MAR P	Reporting Flag for Paternity Acknowledged	0	Non-Reporting
123	1	I_IVIAIN_P	Reporting Flag for Faterinity Acknowledged	1	Reporting Reporting
124	1	MEDUC	Mother's Education	1	•
124	1	MEDUC	MOTHER 8 EQUICATION	2	8 <sup>th</sup> grade or less 9 <sup>th</sup> through 12 <sup>th</sup> grade with no diploma
				3	High school graduate or GED completed

Position	Length	Field	Description	Values	Definition
				4 5 6 7 8	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)
				9	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	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 07 08 09	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 Black and AIAN Black and Asian Black and NHOPI

Position	Length	Field	Description	Values	Definition
				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)
				12	Guamanian (only)
				13	Samoan (only)
				14	Other Pacific Islander (only)

Position	Length	Field	Description	Values	Definition
				15 99	More than one race Unknown or Not Stated
156-158	3	FILLER	Filler		
159	1	FHISPX	Father's Hispanic Origin	0 1 2 3 4 5 6	Non-Hispanic Mexican Puerto Rican Cuban Central or South American Dominican Other and Unknown Hispanic
160	1	FHISP_R	Father's Hispanic Origin Recode	9 0 1 2 3 4 5 9	Origin unknown or not stated  Non-Hispanic Mexican Puerto Rican Cuban Central and South American Other and Unknown Hispanic origin Hispanic origin not stated
161	1	F_FHISP	Reporting Flag for Father's Origin	0 1	Non-Reporting Reporting
162	1	FRACEHISP	Father's Race/Hispanic Origin Based on single/multiple-race (fields 151-152, 153, and 154-155).	1 2 3 4 5 6 7 8 9	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 Race unknown or not stated (Non-Hispanic)
163	1	FEDUC	Father's Education Use reporting flag in field 165	1 2 3 4 5 6 7 8	8 <sup>th</sup> grade or less 9 <sup>th</sup> through 12 <sup>th</sup> grade with no diploma High school graduate or GED completed Some college credit, but not a degree. Associate degree (AA,AS) Bachelor's degree (BA, AB, BS) Master's degree (MA, MS, MEng, MEd, MSW, MBA) Doctorate (PhD, EdD) or Professional Degree (MD, DDS, DVM, LLB, JD) Unknown

Position	Length	Field	Description	Values	Definition
164	1	FILLER	Filler	Blank	
165	1	f_FEDUC	Reporting Flag for Education of Father	0 1	Non-Reporting Reporting
166-170	5	FILLER_F	Filler	Blank	
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	<b>Prior Other Terminations</b>	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 <sup>st</sup> 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	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

Position	Length	Field	Description	Values	Definition
				88 99	Not applicable (1st live birth) Unknown or not stated
203-205	3	FILLER	Filler	Blank	
206-208	3	ILOP_R	Interval Since Last Other Pregnancy Recode Use reporting flag in field 126		Plural delivery Months since last live birth Not applicable / 1 <sup>st</sup> 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 (1st 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		Plural delivery Months since last live birth Not applicable / no previous pregnancy Unknown or not stated
217-218 219-223	2	ILP_R11 FILLER_P	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
224-225	2	PRECARE	Month Prenatal Care Began	00	No prenatal care

Position	Length	Field	Description	Values	Definition
				01-10 99	Month prenatal care began Unknown or not stated
226	1	F_MPCB	Reporting Flag for Month Prenatal Care Began	0 1	Non-Reporting Reporting
227	1	PRECARE5	Month Prenatal Care Began Recode	1 2 3 4 5	1 <sup>st</sup> to 3 <sup>rd</sup> month 4 <sup>th</sup> to 6 <sup>th</sup> month 7 <sup>th</sup> to final month No prenatal care Unknown or not stated
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	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

Position	Length	Field	Description	Values	Definition
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 99	Number of cigarettes daily 98 or more cigarettes daily Unknown or not stated
257-258	2	CIG_2	Cigarettes 2 <sup>nd</sup> Trimester	00-97 98 99	Number of cigarettes daily 98 or more cigarettes daily Unknown or not stated
259-260	2	CIG_3	Cigarettes 3 <sup>rd</sup> 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 1 <sup>st</sup> Trimester Recode	0 1 2 3 4 5	Nonsmoker 1-5 6-10 11-20 21-40 41 or more Unknown or not stated
263	1	CIG2_R	Cigarettes 2 <sup>nd</sup> Trimester Recode	0 1 2 3 4 5	Nonsmoker 1-5 6-10 11-20 21-40 41 or more Unknown or not stated
264	1	CIG3_R	Cigarettes 3 <sup>rd</sup> Trimester Recode	0 1 2 3 4 5	Nonsmoker 1-5 6-10 11-20 21-40 41 or more

Position	Length	Field	Description	Values	Definition
				6	Unknown or not stated
265	1	F_CIGS_0	Reporting Flag for Cigarettes before Pregnancy		Non-Reporting Reporting
266	1	F_CIGS_1	Reporting Flag for Cigarettes 1st Trimester		Non-Reporting Reporting
267	1	F_CIGS_2	Reporting Flag for Cigarettes 2 <sup>nd</sup> Trimester		Non-Reporting Reporting
268	1	F_CIGS_3	Reporting Flag for Cigarettes 3 <sup>rd</sup> Trimester		Non-Reporting Reporting
269	1	CIG_REC	Cigarette Recode	N	Yes No Unknown or not stated
270	1	F_TOBACO	Reporting Flag for Tobacco use		Non-Reporting Reporting
271-279	9	FILLER_R	Filler	Blank	
280-281	2	M_Ht_In	Mother's Height in Total Inches		Height in inches Unknown or not stated
282	1	F_M_HT	Reporting Flag for Mother's Height		Non-Reporting Reporting
283-286	4	BMI	<b>Body Mass Index</b> Use reporting flag in field 282		Body Mass Index Unknown or not stated
287	1	BMI_R	Body Mass Index Recode Use reporting flag in field 282	2 3 4 5 6	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
		EILLED	Filler	Blank	
288-291	4	FILLER	riici	Dialik	
288-291 292-294	3	PWgt_R	Pre-pregnancy Weight Recode		Weight in pounds

Position	Length	Field	Description	Values	Definition
				999	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	
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	Risk Factors			
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	Yes No

Position	Length	Field	Description	Values	Definition
				U	Unknown or not stated
316	1	RF_GHYPE	<b>Gestational Hypertension</b>	Y	Yes
				N U	No Unknown or not stated
317	1	RF EHYPE	Hypertension Eclampsia	Y	Yes
		_		N U	No Unknown or not stated
318	1	RF_PPTERM	Previous Preterm Birth	Y N	Yes 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 1	Non-Reporting
					Reporting
322	1	F_RF_GHYPER	Reporting Flag for Gestational Hypertension	0 1	Non-Reporting Reporting
222		E DE EGLAND			
323	1	F_RF_ECLAMP	Reporting Flag for Hypertension Eclampsia	0 1	Non-Reporting Reporting
324	1	F RF PPB	Reporting Flag for Previous Preterm Birth	0	Non-Reporting
324	1	r_Kr_IIB	Reporting Flag for Trevious Freterin Birtin	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 U	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

Position	1	Length	Field	Description	Values	Definition
	328	1	f_RF_INFT	Reporting Flag for Infertility Treatment	0 1	Non-Reporting Reporting
	329	1	F_RF_INF_DRG	Reporting Flag for Fertility Enhance Drugs	0 1	Non-Reporting Reporting
	330	1	F_RF_INF_ART	Reporting Flag for Reproductive Technology	0 1	Non-Reporting 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	Infections Presen	<u>t</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	Yes No

Position	l	Length	Field	Description	Values	Definition
					U	Unknown or not stated
	346	1	IP_HEPB	Hepatitis B	Y	Yes
					N U	No Unknown or not stated
						Christian of hot stated
	347	1	IP_HEPC	Hepatitis C	Y N	Yes
					N U	No Unknown or not stated
	2.40		E ID COMOD		0	
	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
					1	Reporting
	350	1	F_IP_CHLAM	Reporting Flag for Chlamydia	0	Non-Reporting
					1	Reporting
	351	1	F_IP_HEPATB	Reporting Flag for Hepatitis B	0	Non-Reporting
					1	Reporting
	352	1	F_IP_HEPATC	Reporting Flag for Hepatitis C	0	Non-Reporting
					1	Reporting
	353	1	NO_INFEC	No Infections Reported	1	True
	333	1	110_11126	The Infections Reported	0	False
					9	Not Reported
	354-358	5	FILLER_IP	Filler_IP	Blank	
359-370		12	Obstetric Proced	<u>ures</u>		
	359	1	FILLER	Filler	Blank	
	360	1	OB_ECVS	Successful External Cephalic Version	Y	Yes
			_	-	N	No
					U	Unknown or not stated
	361	1	OB_ECVF	Failed External Cephalic Version	Y	Yes
					N	No
					U	Unknown or not stated

Position	1	Length	Field	Description	Values	Definition
	362	1	FILLER	Filler	Blank	
	363	1	F_OB_SUCC	Reporting Flag for Successful External Cephalic Version	on0 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	
383-400		18	Characteristics of	f Labor and Delivery		
	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	Non-Reporting

Position	L	Length	Field	Description	Values	Definition
					1	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
	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	Method of Delive	<u>rv</u>		
	401	1	ME_PRES	Fetal Presentation at Delivery	1	Cephalic
					2 3 9	Breech Other Unknown or not stated
	402	1	ME_ROUT	Final Route & Method of Delivery	1 2	Spontaneous Forceps
					3 4	Vacuum Cesarean
					9	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

Position	l	Length	Field	Description	Values	Definition
	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 9	Vaginal C-Section Unknown
	409	1	F_DMETH_REC	C Reporting Flag for Method of Delivery Recode		Non-Reporting Reporting
	410-414	5	FILLER_ME	Filler	Blank	
415-432		18	Maternal Morbid	<u>iity</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

Positio	n	Length	Field	Description	Values	Definition
	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 1	Non-Reporting 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/Certified Midwife (CNM/CM) 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	Medicaid Private Insurance Self Pay Other

Position	Length	Field	Description	Values	Definition
				9	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	
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	<b>Ten Minute APGAR Score</b> 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	Single Twin Triplet Quadruplet or higher
455	1	FILLER	Filler	Blank	
456	1	IMP_PLUR	Plurality Imputed	Blank 1	Plurality is not imputed Plurality is imputed

Position	Length	Field	Description	Values	Definition
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 <sup>st</sup> 2 <sup>nd</sup> 3 <sup>rd</sup> 4 <sup>th</sup> 5 <sup>th</sup> to 16 <sup>th</sup> Unknown or not stated
460-474	15	FILLER	Filler	Blank	
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	<b>Obstetric Estimate of Gestation Used Flag</b>	Blank 1	Obstetric Estimate is not used Obstetric Estimate is used

Position	Length	Field	Description	Values	Definition
490-491	2	COMBGEST	Combined Gestation – Detail in Weeks	17-47 99	17 <sup>th</sup> through 47 <sup>th</sup> week of Gestation Unknown
492-493	2	GESTREC10	Combined Gestation Recode 10	01 02 03 04 05 06 07 08 09 10	Under 20 weeks 20-27 weeks 28-31 weeks 32-33 weeks 34-36 weeks 37-38 weeks 40 weeks 41 weeks 42 weeks and over Unknown
494	1	GESTREC3	Combined Gestation Recode 3	1 2 3	Under 37 weeks 37 weeks and over Not stated
495-497	3	FILLER	Filler	Blank	
498	1	LMPUSED	Combined Gestation Used Flag	Blank 1	Combined gestation not used Combined gestation used
499-500	2	OEGest_Comb	Obstetric Estimate Edited (NCHS standard item)	17-47 99	Weeks of gestation Not stated
501-502	2	OEGest_R10	Obstetric Estimate Recode10 (NCHS standard item)	01 02 03 04 05 06 07 08 09 10	Under 20 weeks 20-27 weeks 28-31 weeks 32-33 weeks 34-36 weeks 37-38 weeks 40 weeks 41 weeks 42 weeks and over Unknown
503	1	OEGest_R3	Obstetric Estimate Recode 3 (NCHS Standard Item)	1 2 3	Under 37 weeks 37 weeks and over Not stated

504-507 4 DBWT **Birth Weight – Detail in Grams (Edited)** 0227-8165 Number of grams

Position	Length	Field	Description	Values	Definition
				9999	Not stated birth weight
508	1	FILLER	Filler	Blank	
509-510	2	BWTR12	Birth Weight Recode 12	01 02 03 04 05 06 07 08 09 10 11	0227 - 0499 grams 0500 - 0999 grams 1000 - 1499 grams 1500 - 1999 grams 2000 - 2499 grams 2500 - 2999 grams 3000 - 3499 grams 3500 - 3999 grams 4000 - 4499 grams 4500 - 4999 grams 5000 - 8165 grams Not Stated
511	1	BWTR4	Birth Weight Recode 4	1 2 3 4	0227 - 1499 grams 1500 – 2499 grams 2500 - 8165 grams Unknown or not stated
512-516	5	FILLER_G	Filler	Blank	
517-536	20	Abnormal Cond	litions of the Newborn		
517	1	AB_AVEN1	Assisted Ventilation (immediately)	Y N U	Yes No Unknown or not stated
518					
	1	AB_AVEN6	Assisted Ventilation > 6 hrs	Y N U	Yes No Unknown or not stated
519	1	AB_AVEN6  AB_NICU	Assisted Ventilation > 6 hrs  Admission to NICU	N	No
519 520				N U Y N	No Unknown or not stated Yes No

Position	Length	Field	Description	Values	Definition		
				U	Unknown or not stated		
522	1	AB_SEIZ	Seizures	Y N U	Yes No Unknown or not stated		
523	1	FILLER	Filler B				
524	1	F_AB_VENT	Reporting Flag for Assisted Ventilation (immediately)	0 1	Non-Reporting Reporting		
525	1	F_AB_VENT6	Reporting Flag for Assisted Ventilation >6 hrs	hrs 0 Non-Reporting 1 Reporting			
526	1	F_AB_NIUC	Reporting Flag for Admission to NICU	0 1	Non-Reporting Reporting		
<ul><li>527</li><li>528</li><li>529</li></ul>	1	F_AB_SURFAC	Reporting Flag for Surfactant	0 1	Non-Reporting Reporting		
	1	F_AB_ANTIBIO	Reporting Flag for Antibiotics	0 1	Non-Reporting Reporting		
	1	F_AB_SEIZ	Reporting Flag for Seizures	0 1	Non-Reporting Reporting		
530	1	FILLER	CR Filler		Blank		
531	1	NO_ABNORM	No Abnormal Conditions Checked	1 0 9	True False Not Reported		
532-5	536 5	FILLER_AB	Filler	blank			
537-566	30	Congenital Anom	alies of the Newborn				
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		

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

Position		Length	Field	Description	Values	Definition
55	52	1	CA_DOWN	Down Syndrome	C P N U	Confirmed Pending No Unknown
55	53	1	CA_DISOR	Suspected Chromosomal Disorder	C P N U	Confirmed Pending No Unknown
55	54	1	СА_НҮРО	Hypospadias	Y N U	Yes, anomaly reported No, anomaly not reported Unknown
55	55	1	F_CA_LIMB	Reporting Flag for Limb Reduction Defect	0 1	Non-Reporting Reporting
55	56	1	F_CA_CLEFTLP	Reporting Flag for Cleft Lip with or without Cleft Palat	te0	Non-Reporting Reporting
55	57	1	F_CA_CLEFT	Reporting Flag for Cleft Palate Alone	0 1	Non-Reporting Reporting
55	58	1	F_CA_DOWNS	Reporting Flag for Down Syndrome	0 1	Non-Reporting Reporting
55	59	1	F_CA_CHROM	Reporting Flag for Suspected Chromosomal Disorder	0 1	Non-Reporting Reporting
56	60	1	F_CA_HYPOS	Reporting Flag for Hypospadias	0 1	Non-Reporting Reporting
56	61	1	NO_CONGEN	No Congenital Anomalies Checked	1 0 9	True False Not Reported
56	62-566	5	FILLER_CA	Filler	Blank	
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	Yes No

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. 37

Position	Length	Field	Description	Values	Definition
				U	Unknown or not stated
569	1	BFED	Infant Breastfed at Discharge	Y	Yes
			Ü	N	No
				U	Unknown or not stated
570	1	F_BFED	Reporting Flag for Breastfed at Discharge	0 1	Non-Reporting Reporting
571-1330	760	FILLER_X	Filler	Blank	

Position Length Field Description Values Definition

#### **ADDENDUM**

Detailed geographic information for the territories.

24-25	2	OCTERR	Mother's Occurrence Territory/Possession	Outlying Areas of the United States  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	Puerto Rico 021 Bayamo'n 025 Caguas 031 Carolina 097 Mayaguez 113 Ponce 127 San Juan 999 County of less than 100,000  Other Outlying Areas of the United States 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	<b>Mother's Residence Country</b>	AA-ZZ See Geographic Documentation
89-90	2	MRTERR	Mother's Residence Territory	Outlying Areas of the United States  AS American Samoa  GU Guam  MP Northern Marianas  PR Puerto Rico

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

- 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

- 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

- 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

- 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

- 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

- 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 2021 NATALITY

# U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

# CENTERS FOR DISEASE CONTROL AND PREVENTION NATIONAL CENTER FOR HEALTH STATISTICS

Hyattsville, Maryland: 2022

#### 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 2021" [1], and are for use with the 2021 Natality public use data. The 2021 natality micro-data file may be downloaded at <a href="http://www.cdc.gov/nchs/data\_access/VitalStatsOnline.htm">http://www.cdc.gov/nchs/data\_access/VitalStatsOnline.htm</a> [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 (<a href="http://wonder.cdc.gov">http://wonder.cdc.gov</a>). CDC WONDER is an interactive online data access tool that provides selected natality data from 1995-2021. Beginning with the 2016 data, all items available in the public use file are 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 <a href="https://www.cdc.gov/nchs/nvss/deleted\_items\_from\_birth\_fetal\_death\_files.htm">https://www.cdc.gov/nchs/nvss/deleted\_items\_from\_birth\_fetal\_death\_files.htm</a>.

Key natality items are presented in "Births in the United States, 2021," which will accompany the release of the 2021 public use file [2]. Information on other items can be found in the upcoming 2021 final report and accompanying internet tables [1]. Additional discussion of selected items (e.g., primary and repeat cesarean delivery, changes in births by month, singleton preterm birth rates, gestational diabetes, and home births) is available in recent reports [3-7]. Assessments of the quality of many medical and health items are also available [8,9].

**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. Note that American Samoa did not report for 2021.

#### **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 2021 is obtained from images 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 2021.

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., 2021 births to women aged 20-24 years and the 2021 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 2021 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 2021 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 <a href="http://www.cdc.gov/nchs/nvss/vital\_certificate\_revisions.htm">http://www.cdc.gov/nchs/nvss/vital\_certificate\_revisions.htm</a>. 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 reengineering 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 <a href="https://www.cdc.gov/nchs/data/dvs/moms-worksheet-2016.pdf">https://www.cdc.gov/nchs/data/dvs/moms-worksheet-2016.pdf</a>) [27] and the "Facility Worksheet"

(available at <a href="https://www.cdc.gov/nchs/data/dvs/facility-worksheet-2016.pdf">https://www.cdc.gov/nchs/data/dvs/facility-worksheet-2016.pdf</a>) [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 <a href="https://www.cdc.gov/nchs/data/dvs/GuidetoCompleteFacilityWks.pdf">https://www.cdc.gov/nchs/data/dvs/GuidetoCompleteFacilityWks.pdf</a>) [29]. Detailed definitions and instructions for data items that are collected from the Facility Worksheet are in the "Guide to the Facility Worksheet".

Birth eLearning training: 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 updated and re-launched in June 2021 (initial launch 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 60 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].

#### Natality data files

Micro-data files: Natality micro-data files for data years 1968-2021 may be downloaded at <a href="http://www.cdc.gov/nchs/data\_access/VitalStatsOnline.htm">http://www.cdc.gov/nchs/data\_access/VitalStatsOnline.htm</a>. 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 <a href="http://www.cdc.gov/nchs/nvss/dvs">http://www.cdc.gov/nchs/nvss/dvs</a> 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].

For 1989 through 2017, 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." Starting with 2018, data are presented for the additional Hispanic group, Dominican (see items MHISPX and FHISPX in file positions 112 and 159). This subgroup was previously included in "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, Dominican, 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 2021 is presented by reporting area in **Table B**.

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, were reporting race according to the 1997 revised OMB standards, with 2.8% of mothers in the U.S. reporting more than one race in 2021 (**Documentation Table 1**).

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 2021, race of mother was imputed for 7.0% 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 <a href="https://www.cdc.gov/nchs/products/vsus.htm#natab2003">https://www.cdc.gov/nchs/products/vsus.htm#natab2003</a>, [38] and for recent years, in **Table I-6** of the 2021 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 (491 records; 0.01% for 2021) 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 [31,39]).

#### 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 2021 Final Report [1].

Inferential procedures: Historical information on inferential procedures can be found in the 2014 User Guide [18]. In 2021, 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 [40,41].

Imputation of marital status: Mother's marital status was not reported in 2021 on 11.5% 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 2021 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 2021 Final Report [1], and Table B for the percent of records for which mother's education is not stated.

Starting with the 2018 data, the following consistency checks for maternal age are applied to each level of educational attainment:

8th grade or less Minimum age 9 9th through 12th grade, no diploma Minimum age 13 High school graduate or GED completed Minimum age 15 Some college credit, but not a degree Minimum age 17 Associate degree Minimum age 18 Minimum age 20 Bachelor's degree Minimum age 21 Master's degree Doctorate Minimum age 23. Where maternal age is not compatible with the level of educational attainment, educational attainment is edited to "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 13.6% (**Table B**) in 2021, 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 2021 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 <u>Facility Worksheet</u> [28]. Detailed instructions and definitions for these items are presented in the <u>Guide to the Facility Worksheet</u> [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 <u>Facility Worksheet</u> [28]. Detailed instructions and definitions for these items are presented in the <u>Guide to the Facility Worksheet</u> [29]. See also the NCHS manual for detailed descriptions of editing and computation methods [30,31], **Table I-10** of the 2021 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 <u>Facility Worksheet</u> [28]. Detailed instructions and definitions for these items are presented in the <u>Guide to the Facility Worksheet</u> [29]. See also the NCHS manual for detailed descriptions of editing and computation methods [30,31], **Table 16** of the 2021 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 1<sup>st</sup> trimester. For example, in 2014, the percentage of births with prenatal care beginning in the 1<sup>st</sup> trimester was 73.3% when based on LMP (data not available) compared with 76.6% when based on OE. By state, 1<sup>st</sup> trimester prenatal care based on OE was, on average, 5% higher than 1<sup>st</sup> 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 [42]. See also the NCHS manual for detailed descriptions of editing and computation methods [30,31], **Table I-11** of the 2021 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 2021 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 <u>Facility Worksheet</u> [28]. Detailed instructions and definitions are presented in the <u>Guide to the Facility Worksheet</u> [29]. See also the NCHS manual for detailed descriptions of editing and computation methods [30,31], **Table I-14** of the 2021 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  $\geq 38^{\circ}$ 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 <u>Facility Worksheet</u> [28]. Detailed instructions and definitions for the characteristics are presented in the <u>Guide to the Facility Worksheet</u> [29]. See also the NCHS manual for detailed descriptions of editing and computation methods [30,31], **Table I-15** of the 2021 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 (and a follow-up question "Planned to delivery at home? Yes/No,"); 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 <u>Facility Worksheet</u> [28]. Detailed instructions and definitions for the characteristics are presented in the <u>Guide to the Facility Worksheet</u> [29]. See also the NCHS manual for detailed descriptions of editing and computation methods [30,31], **Tables I-4** and **I-5** of the 2021 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 all 50 states and the District of Columbia for the first year for 2021. 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.

#### 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 <u>Facility Worksheet</u> [28]. Detailed instructions and definitions for the characteristics are presented in the <u>Guide to the Facility Worksheet</u> [29]. See also the NCHS manual for detailed descriptions of editing and computation methods [30,31], **Tables I-1** of the 2021 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 <u>Facility Worksheet</u> [28]. Detailed instructions and definitions for the characteristics are presented in the <u>Guide to the Facility Worksheet</u> [29]. See also the NCHS manual for detailed descriptions of editing and computation methods [30,31], **Tables I-4** of the 2021 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 [43], 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 <u>Facility Worksheet</u> [28]. Detailed instructions and definitions for the characteristics are presented in the <u>Guide to the Facility Worksheet</u> [29]. See also the NCHS manual for detailed descriptions of editing and computation methods [30,31], **Table I-17** of the 2021 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 2021 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 2021 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 livebirth order are discussed in more detail elsewhere. See **Tables 17**, **18** and **I-16** of the 2021 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 2021 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. Note that for 2018-2021, for Rhode Island, "other" sources of payment for the delivery includes only CHAMPUS/TRICARE, whereas "other" for other reporting areas combines several sources.

It is recommended that this information be collected directly from the medical record using the <u>Facility Worksheet</u> [28]. Detailed instructions and definitions for the characteristics are presented in the <u>Guide to the Facility Worksheet</u> [29]. See also the NCHS manual for detailed descriptions of editing and computation methods [30,31], **Table 19** of the 2021 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 and the District of Columbia, representing 59.5 percent of all U.S. births in 2021. 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 (Arizona, Arkansas, Florida, Illinois, Minnesota, Mississippi, Missouri, New Hampshire, New Jersey, North Carolina, Pennsylvania, Rhode Island, Texas, Vermont, and Virginia). 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:

[mother's pre-pregnancy weight (lb) / [mother's height (in)]2 ] x 703

The currently used categories for BMI were established by the National Health, Lung and Blood Institute (NHBL) in the late 1990s [44]. See the NCHS manual for detailed descriptions of editing and computation methods [30,31], **Table I-9** of the 2021 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 100-450 pounds.

It is recommended that this information be collected directly from the medical record using the <u>Facility Worksheet</u> [28]. Detailed instructions and definitions for the characteristics are presented in the <u>Guide to the Facility Worksheet</u> [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 (except for births with gestational ages less than 27 weeks; see below) who report not smoking in other trimesters are classified as "Unknown smoking status."

For women whose pregnancies end prior to the 3rd trimester of pregnancy (less than 27 completed weeks), but for whom cigarette smoking is reported in the 3rd trimester of pregnancy, smoking status during the 3rd trimester of pregnancy is changed/edited to "Unknown." Women who give birth prior to the 3rd trimester who report smoking in the 1st or 2nd trimester are classified as

smokers. Women who give birth prior to the 3rd trimester of pregnancy who report no cigarettes in the 1st or 2nd trimester are classified as non-smokers.

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 2021 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 <u>Facility Worksheet</u> [28]. Detailed instructions and definitions for the characteristics are presented in the <u>Guide to the Facility Worksheet</u> [29]. See also the NCHS manual for detailed descriptions of editing and computation methods [30,31], **Table I-12** of the 2021 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 49 states and the District of Columbia (excludes South Carolina), representing 98.4 percent of 2021 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 49 states and the District of Columbia (excludes South Carolina), representing 98.4 percent of 2021 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 <u>Facility Worksheet</u> [28]. Detailed instructions and definitions for the characteristics are presented in the <u>Guide to the Facility Worksheet</u> [29]. See also the NCHS manual for detailed descriptions of editing and computation methods [30,31], **Table I-13** of the 2021 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 <u>Facility Worksheet</u> [28]. Detailed instructions and definitions for the characteristics are presented in the <u>Guide to the Facility Worksheet</u> [29]. See also the NCHS manual for detailed descriptions of editing and computation methods [30,31], **Table I-18** of the 2021 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) [45]. 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 2021 OE-based preterm birth rate is 10.49% compared with the LMP-based rate of 12.28%. Of note, both preterm birth rates declined from 2007 to 2014 but rose from 2015 to 2019. Discussion of the reasons for the change, and a detailed comparison of the two measures, are presented elsewhere [45].

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 [46].

It is recommended that this information be collected directly from the medical record using the <u>Facility Worksheet</u> [28]. Detailed instructions and definitions for the characteristics are presented in the <u>Guide to the Facility Worksheet</u> [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 2021 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) [14,47]. 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 <u>Facility Worksheet</u> [28]. Detailed instructions and definitions for the characteristics are presented in the <u>Guide to the Facility Worksheet</u> [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 2021 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 1.3 percent (47,277) of births in 2021; an additional 5.5 percent (2,589) 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 <u>Facility Worksheet</u> [28]. Detailed instructions and definitions for the characteristics are presented in the <u>Guide to the Facility Worksheet</u> [29]. See also the NCHS manual for detailed descriptions of editing and computation methods [30,31], **Table I-24** of the 2021 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) gastrochisis; 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 2021 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 discuss 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, and quadruplet 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 0.007% (271) of all records for 2021.

It is recommended that this information be collected directly from the medical record using the <u>Facility Worksheet</u> [28]. Detailed instructions and definitions for the characteristics are presented in the <u>Guide to the Facility Worksheet</u> [29]. See also NCHS manuals for detailed descriptions of editing and computation methods [30,31], **Tables 24**, **25**, and **I-23** in the 2021 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 49 states and the District of Columbia (excludes California), representing 88.5% of all U.S. births in 2021. 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 <u>Facility Worksheet</u> [28]. Detailed instructions and definitions for the characteristics are presented in the <u>Guide to the Facility Worksheet</u> [29]. See also NCHS manuals for detailed descriptions of editing and computation methods [30,31], **Table I-11** in the 2021 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 <u>Guide to</u> 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. Underreporting of certain medical and health items should also be noted (see below). 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 2021 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: Two reports based on studies in two states and New York City 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 [8,9].

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 [48] 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 [49]. 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 [50]. 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 2021

These state-specific data quality issues are of particular concern due to documented evidence of underreporting and/or inaccurate reporting for 2021. *These data should be used with caution*.

Father's information: Changes in delivery room/hospital policy in response to the COVID-19 pandemic, may have influenced a general increase in unknown information for fathers and an increase in a "No" response for paternity acknowledgements.

#### Alabama:

• Obstetric procedures – Successful, Failed External Cephalic Version

#### Arkansas:

• Obstetric procedures – Successful, Failed External cephalic version

#### Indiana:

• Attendant at delivery

#### Puerto Rico:

• Characteristics of Labor & Delivery – Anesthesia, Induction of labor

#### South Carolina:

- Number of Live Born
- Prenatal Care items Date of First Prenatal Care Visit

# Virgin Islands:

- *Marital status* (unknowns exceed 25% of records)
- Prenatal Care items Day of the First Prenatal Care Visit (unknowns exceed 25% of records)
- Previous Live Births Now Dead
- Mother Received WIC Food During Pregnancy (unknowns exceed 25% of records)
- Date of Last Other Pregnancy Outcome (unknowns exceed 25% of records)
- *Number of Cigarettes Smoked items* (unknowns exceed 25% of records)
- *Method of Delivery* Trial of Labor (unknowns exceed 25% of records)
- *Multiple items:* Residence of Mother Inside City Limits, Paternity Acknowledgement: Unknowns exceeded 50% and have been flagged as "Not Reported."

## Virginia:

- Prenatal care items Number prenatal care visits
- Obstetric procedures Successful, Failed External cephalic version

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

# **Population denominators**

2021 population estimates: Birth and fertility rates for 2021 shown in the 2021 Final Report [1] are based on populations estimated from the 2020 census as of July 1, 2021. These populations are shown in **Table 1**. The population estimates have been provided by the U.S. Census Bureau [51] and are based on the 2020 census counts by age, race (consistent with the revised 1997 OMB standards), and sex [34].

Birth and fertility rates by state shown in the 2021 Final Report [1] are based on state-level population estimates based on the 2020 census provided by the U.S. Census Bureau [51]. 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 [52]. Rates for Puerto Rico are based on population estimates from the 2020 census as of July 1, 2021, and are available from the U.S. Census Bureau [53].

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 2020 census estimates. Rates for unmarried women are based on distributions of the population by marital status averaged over a 2-year period for 2020–2021 as reported by the U.S. Census Bureau in the March Current Population Survey (CPS) for each

year [54,55], which have been adjusted to July 1, 2021 (2020 census) population levels [51] by NCHS' Division of Vital Statistics [41].

As of the preparation of this report, data from the March CPS for 2022 were not available. Accordingly, the distributions of the population by marital status were based on a 2-year average of 2020 and 2021. 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, and Dominican, starting in 2016) are based on population estimates derived from the 1-year American Community Survey (ACS) [56] 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 [57].

The 2021 population estimates for the specific Hispanic population groups were not available as of the preparation of the 2021 final report. Accordingly, birth and fertility rates for these groups are not shown in the final report. Once available, birth and fertility rates for the specified Hispanic population groups will be published. These estimates will be derived from the 2021 1-year ACS and adjusted according to the (2020-based) postcensal estimates for July 1, 2021.

# **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 2010–2021 are shown in **Table 3** [58]. 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 2010-2021. 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 2021 can be computed by multiplying the reported rates by ratios from the 2021 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 1,664.0 in 2021, 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 2021, they would have a total of 1,664 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 [57].

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Figure 1. U.S. Standard Certificate of Live Birth, 2003 Revision **U.S. STANDARD CERTIFICATE OF LIVE BIRTH** LOCAL FILE NO. BIRTH NUMBER: 4. DATE OF BIRTH (Mo/Day/Yr) 1. CHILD'S NAME (First, Middle, Last, Suffix) 2. TIME OF BIRTH 3 SEX H I LD (24 hr) 5. FACILITY NAME (If not institution, give street and number) 6. CITY, TOWN, OR LOCATION OF BIRTH 7 COUNTY OF BIRTH 8a. MOTHER'S CURRENT LEGAL NAME (First, Middle, Last, Suffix) 8b. DATE OF BIRTH (Mo/Day/Yr) MOTHER 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 INSIDE CIT LIMITS? □ Yes □ No 10a. FATHER'S CURRENT LEGAL NAME (First, Middle, Last, Suffix) 10b. DATE OF BIRTH (Mo/Day/Yr) 10c. BIRTHPLACE (State, Territory, or Foreign Country) FATHER 12. DATE CERTIFIED 11 CERTIFIER'S NAME: 13 DATE FILED BY REGISTRAR CERTIFIER TITLE: 

MD DO HOSPITAL ADMIN. 

CNM/CM DOTHER MIDWIFE MM DD YYYY □ OTHER (Specify) MM DD INFORMATION FOR ADMINISTRATIVE USE 14. MOTHER'S MAILING ADDRESS: MOTHER 9 Same as residence, or: State: City, Town, or Location: Street & Number Apartment No.: Zip Code: 16. SOCIAL SECURITY NUMBER REQUESTED 17. FACILITY ID. (NPI) 15. MOTHER MARRIED? (At birth, conception, or any time between) □ Yes □ No FOR CHILD? □ No □ Yes □ No IF NO, HAS PATERNITY ACKNOWLEDGEMENT BEEN SIGNED IN THE HOSPITAL?  $\ \square$  Yes 18. MOTHER'S SOCIAL SECURITY NUMBER: 19. FATHER'S SOCIAL SECURITY NUMBER: INFORMATION FOR MEDICAL AND HEALTH PURPOSES ONLY 20. MOTHER'S EDUCATION (Check the 21. MOTHER OF HISPANIC ORIGIN? (Check 22. MOTHER'S RACE (Check one or more races to indicate MOTHER box that best describes the highest the box that best describes whether the what the mother considers herself to be) degree or level of school completed at mother is Spanish/Hispanic/Latina. Check the □ White "No" box if mother is not Spanish/Hispanic/Latina) the time of delivery) Black or African American American Indian or Alaska Native No. not Spanish/Hispanic/Latina □ 8th grade or less (Name of the enrolled or principal tribe) □ Yes, Mexican, Mexican American, Chicana □ Asian Indian □ 9th - 12th grade, no diploma □ Chinese □ Yes, Puerto Rican □ High school graduate or GED □ Filipino ☐ Yes, Cuban □ Japanese □ Korean ☐ Some college credit but no degree □ Yes, other Spanish/Hispanic/Latina □ Vietnamese □ Associate degree (e.g., AA, AS) □ Other Asian (Specify) (Specify) □ Native Hawaiian  $\hfill\Box$  Bachelor's degree (e.g., BA, AB, BS) □ Guamanian or Chamorro Master's degree (e.g., MA, MS, MEng, MEd, MSW, MBA) □ Other Pacific Islander (Specify)\_ Doctorate (e.g., PhD, EdD) or Professional degree (e.g., MD, DDS, □ Other (Specify) DVM, LLB, JD) 23. FATHER'S EDUCATION (Check the 24. FATHER OF HISPANIC ORIGIN? (Check 25. FATHER'S RACE (Check one or more races to indicate FATHER box that best describes the highest the box that best describes whether the father is Spanish/Hispanic/Latino. Check the what the father considers himself to be) degree or level of school completed at the time of delivery) "No" box if father is not Spanish/Hispanic/Latino) □ White □ Black or African American □ No. not Spanish/Hispanic/Latino □ 8th grade or less □ American Indian or Alaska Native □ Yes, Mexican, Mexican American, Chicano (Name of the enrolled or principal tribe) □ 9th - 12th grade, no diploma □ Asian Indian Mother's Medical Record ☐ Yes. Puerto Rican □ High school graduate or GED □ Chinese

- completed □ Some college credit but no degree
- □ Associate degree (e.g., AA, AS) □ Bachelor's degree (e.g., BA, AB, BS)
- Master's degree (e.g., MA, MS, MEng, MEd, MSW, MBA)
- Doctorate (e.g., PhD, EdD) or Professional degree (e.g., MD, DDS, DVM. LLB. JD)
- □ Yes. Cuban
- □ Yes, other Spanish/Hispanic/Latino

- □ Filipino
- □ Japanese □ Korean
- □ Vietnamese
- □ Other Asian (Specify) □ Native Hawaiian
- □ Guamanian or Chamorro
- □ Other Pacific Islander (Specify)\_
- □ Other (Specify)\_

26.	PLACE WHERE BIRT	H OCCURRED	(Check one)
□ H	Hospital		

- Freestanding birthing center
- □ Home Birth: Planned to deliver at home? 9 Yes 9 No
- □ Other (Specify)\_
- □ Clinic/Doctor's office

27.	ATTENDANT'S	S NAME,	TITLE,	AND NPI

NAME: NPI:

TITLE: D MD DO D CNM/CM D OTHER MIDWIFE □ OTHER (Specify)\_

28. MOTHER TRANSFERRED FOR MATERNAL MEDICAL OR FETAL INDICATIONS FOR DELIVERY? □ Yes □ No IF YES, ENTER NAME OF FACILITY MOTHER

TRANSFERRED FROM:

Mother's Name

МОТ	HER	29a. DATE OF FI	RST PRENATAL CA	ARE VISIT No Prenatal Care		//	ENATAL CARE VISIT	30. TOTAL NUI	MBER OF PRENATA	AL VISITS FOR THIS PREGNANCY		
		M M D D	YYYY		MM	D D	YYYY		/24 DID MOTUED	_ (If none, enter A0".)		
			et/inches)	(p	oounds)		(pour	nds)	DURING THIS	GET WIC FOOD FOR HERSELF S PREGNANCY?  Yes  No		
		35. NUMBER OF LIVE BIRTHS this child)  35a. Now Living Number  None	PREVIOUS (Do not include  35b. Now Dead  Number  None	(spontaneous of	PREGNANCY OUTCOMES spontaneous or induced osses or ectopic pregnancies) Other Outcomes  Three Months Before Pregnancy First Three Months of Pregnancy First Three Months of Pregnancy First Three Months of Pregnancy					38. PRINCIPAL SOURCE OF PAYMENT FOR THIS DELIVERY  Private Insurance Medicaid Self-pay Other (Specify)		
		35c. DATE OF LA	AST LIVE BIRTH	36b. DATE OF LAS		39. DATE	LAST NORMAL ME	40. MOTHER'S N	MEDICAL RECORD NUMBER			
н	EDICAL AND EALTH PRMATION	(Check a Diabetes	ncy (Chronic) I (PIH, preeclampsi I (PIH, preeclampsi I poor pregnancy out I, small-for-gestation ed birth) sulted from infertility apply: Inhancing drugs, Artif ie insemination (IVF), gamete intraf. IFT)) previous cesarean c many  pove S PRESENT AND/O IS PREGNANCY (C	to this pregnancy) is pregnancy)  a)  tcome (Includes nal age/intrauterine treatment-If yes, icial insemination or gy (e.g., in vitro allopian  delivery	□ Cervical □ Tocolysis External ce  □ Succes □ Failed □ None of  44. ONSET □ Prematur □ Precipitot □ None of tt  45. CHARAC □ Induction □ Augmenta □ Non-verte □ Steroids ( □ received □ Antibiotics □ Clinical chematernal □ Moderate. □ Fetal intol □ following measure	cerclage s chalic version structure of labor actions war se, further fer or spinal anea	(Check all that apply) f the Membranes (prol hrs.) 0 hrs.)  OF LABOR AND DEL that apply)	onged, 312 hrs.)  IVERY  uration bor abor or ammiotic fluid nore of the scitative	unsuccessfulfa   Yes   Yes    B. Was delivery we but unsuccess   Yes    C. Fetal presenta   Cephalic   Breech   Other  D. Final route and   Vaginal/St   Vaginal/Fc   Vaginal/Fc   Vaginal/Fc   Fesarean   Fesarean   Fesarean   Fesarean   Third or four   Third or four   Ruptured u   Unplanned   Admission   Third or four   Admission   Third or four   Ruptured u   Unplanned   Admission   Third or four   Ruptured u   Unplanned   Admission   Third or four   Ruptured u   Ruptured u   Ruptured u   Ruptured u   Ruptured u   Ruptured u   Admission   Third or four   Ruptured u   Rup	with forceps attempted but? No with vacuum extraction attempted sful? No ation at birth  If method of delivery (Check one) pontaneous proceps acuum n, was a trial of labor attempted?  MORBIDITY (Check all that apply) as associated with labor and ansfusion urth degree perineal laceration terus hysterectomy to intensive care unit operating room procedure elivery		
NE	WBORN		EDICAL RECORD N	specify unit)	(C	ONDITIONS heck all that	OF THE NEWBORN apply)	□ An	(Check all the encephaly			
Mother's Name	Mother's Medical Record	50. OBSTETRIC E  51. APGAR SCOF Score at 5 minutes If 5 minute score Score at 10 minute 52. PLURALITY - 5 (Specify)  53. IF NOT SINGI Third, etc. (Sp	s: e is less than 6, es: Single, Twin, Triplet, LE BIRTH - Born Firecify) TRANSFERRED W	TATION:  /eeks)  etc.  st, Second,  9 IITHIN 24 HOURS OI	following delivery  Assisted ventilation required for more than six hours  NICU admission  Newborn given surfactant replacement therapy  Antibiotics received by the newborn for suspected neonatal sepsis  Seizure or serious neurologic dysfunction  Significant birth injury (skeletal fracture(s), peripheral perve injury and/or soft tissue/solid organ hemorrhage				Meningomyelocele/Spina bifida Cyanotic congenital heart disease Congenital diaphragmatic hernia Omphalocele Gastroschisis Limb reduction defect (excluding congenital amputation and dwarfing syndromes) Cleft Lip with or without Cleft Palate Cleft Palate alone Down Syndrome  Karyotype confirmed  Karyotype pending Suspected chromosomal disorder Karyotype confirmed  Karyotype pending Hypospadias None of the anomalies listed above			
Mo	Mot No.	TO:	OF FACILITY INFA	NT TRANSFERRED			□ Yes □ No □	Infant transferred	l, status unknown	BREASTFED AT DISCHARGE?  ☐ Yes ☐ 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, 2021

	Number	live births
Area	Occurrence <sup>1</sup>	Residence <sup>1,2</sup>
United States	3,669,928	3,664,292
Alabama	56,610	58,054
Alaska	9,281	9,367
Arizona	78,387	77,916
Arkansas	35,120	35,965
California	421,088	420,608
Colorado	63,560	62,949
Connecticut	36,920	35,670
Delaware	10,871	10,482
District of Columbia	12,035	8,660
Florida	216,534	216,260
Georgia	125,059	124,073
Hawaii	15,636	15,620
Idaho	22,156	22,427
Illinois	128,502	132,189
Indiana	80,251	79,946
Iowa	36,845	36,835
Kansas	36,359	34,705
Kentucky	50,201	52,214
Louisiana	57,625	57,437
Maine	11,681	12,006
Marriand	<i>(5</i> ,000	60 205
Maryland	65,098	68,285
Massachusetts	70,076	69,137
Michigan Minnegate	103,992	104,980
Minnesota	63,497	64,425
Mississippi Missouri	34,060	35,156
	70,183	69,453
Montana	11,245	11,231
Nebraska	24,779	24,609
Nevada	33,283	33,686
New Hampshire	12,670	12,625
New Jersey	98,603	101,497
New Mexico	19,779	21,391
1.0 Menio	17,117	21,571

New York	211,541	210,742
North Carolina	122,683	120,466
North Dakota	11,673	10,112
Ohio	130,194	129,791
Oklahoma	46,699	48,410
Oregon	41,623	40,914
Pennsylvania	131,545	132,622
Rhode Island	11,001	10,464
South Carolina	53,202	57,185
South Dakota	12,210	11,369
Tennessee	87,212	81,717
Texas	380,216	373,594
Utah	47,955	46,712
Vermont	5,120	5,384
Virginia	96,062	95,825
Washington	83,493	83,911
West Virginia	18,318	17,198
Wisconsin	61,547	61,781
Wyoming	5,648	6,237

Births occurring to US territorial residents	
Puerto Rico	 19,304
Virgin Islands	 903
Guam	 2,623
American Samoa	 
Northern Marianas	 570

<sup>---</sup> Data not available.

<sup>&</sup>lt;sup>1</sup> Excludes data for the territories.

<sup>&</sup>lt;sup>2</sup> Excludes data for foreign residents.

Table B. Percent of birth records on which specified items were not stated: United States and each state and territory, New York City, and the District of Columbia, 2021 [By place of residence]

Reporting area	All births	Time of birth	Mother's	Education of	Education of	Father's age	Father's race —	Hispanic O	rigin
Reporting area	AII DII CIIS	Time of bilth	birthplace	mother	father	racher's age	rather's race —	Mother	Father
Total of reporting areas 1	3,664,292	0.0	0.2	1.5	13.6	11.2	18.3	1.0	12.7
Alabama	58,054	-	0.0	0.1	16.3	16.1	20.1	0.0	16.1
Alaska	9,367	0.1	0.1	1.8	16.2	11.4	16.5	2.3	18.4
Arizona	77,916	0.0	0.1	0.4	13.5	13.0	15.6	0.5	13.8
Arkansas	35 <b>,</b> 965	0.0	0.6	1.1	25.0	22.2	28.3	0.3	22.1
California	420,608	0.0	0.2	7.4	13.4	6.0	16.9	4.3	9.8
Colorado	62 <b>,</b> 949	0.0	0.2	1.1	7.2	5.9	11.1	0.9	6.4
Connecticut	35 <b>,</b> 670	_	0.1	0.1	9.0	8.9	14.2	0.1	9.0
Delaware	10,482	_	0.9	2.4	34.6	24.0	33.9	0.4	24.8
District of Columbia	8,660	_	0.3	2.1	20.6	18.1	27.1	0.2	18.9
Florida	216,260	0.0	0.3	1.1	13.0	10.8	22.4	0.1	10.9
Georgia	124,073	0.0	0.0	0.3	17.6	13.7	20.3	0.5	14.2
Hawaii	15,620	-	0.2	1.9	8.7	8.0	8.5	0.5	8.2
Idaho	22,427	0.0	0.4	0.9	11.7	8.1	16.5	0.5	11.4
Illinois	132,189	0.0	0.1	1.1	12.5	10.1	13.6	0.6	10.8
Indiana	79,946	0.0	0.4	0.3	11.8	11.4	14.0	0.2	11.7
Iowa	36,835	-	0.0	0.2	13.6	12.3	16.0	0.0	12.8
Kansas	34,705	-	0.2	0.6	9.5	8.8	11.5	0.3	9.1
Kentucky	52,214	0.0	0.2	0.5	20.5	18.6	22.8	0.2	19.3
Louisiana	57,437	-	0.0	0.5	15.0	14.1	20.5	0.1	14.3
Maine	12,006	0.0	0.1	0.3	10.5	10.2	11.6	0.1	15.9
Maryland	68 <b>,</b> 285	0.0	0.3	0.6	13.2	10.5	22.0	0.2	12.5
Massachusetts	69,137	0.0	0.0	2.3	8.1	6.5	10.6	1.5	4.0
Michigan	104,980	0.0	0.2	0.9	11.6	10.7	14.0	0.6	11.4
Minnesota	64,425	0.1	0.2	0.5	11.2	7.6	13.9	0.2	7.8
Mississippi	35 <b>,</b> 156	_	0.1	0.3	15.8	15.4	19.4	0.0	15.6
Missouri	69,453	0.0	1.3	0.4	21.9	21.2	23.7	0.7	23.5
Montana	11,231	-	0.0	0.1	8.1	7.7	9.2	0.1	7.7
Nebraska	24,609	-	0.1	0.1	11.5	10.7	20.6	0.1	11.3
Nevada	33,686	0.0	0.2	2.4	13.0	10.3	13.2	0.3	10.7
New Hampshire	12,625	-	0.1	0.5	6.1	5.2	9.3	0.6	5.3
New Jersey	101,497	0.0	0.0	1.1	7.7	6.2	19.6	1.6	8.6
New Mexico	21,391	0.0	0.0	0.3	16.6	16.5	17.1	0.2	16.8
New York (excluding NYC)	117,122	-	0.0	0.9	9.8	8.1	16.0	0.5	8.8
New York City	93,620	-	0.1	0.5	9.9	9.0	21.4	1.6	10.9
North Carolina	120,466	0.0	0.5	0.3	15.6	14.9	24.5	0.1	15.0
North Dakota	10,112	-	3.1	1.5	12.7	10.6	11.5	2.0	12.8
Ohio	129,791	0.0	0.1	0.3	17.4	16.7	19.8	0.2	17.2
Oklahoma	48,410	-	0.1	0.2	16.6	14.3	22.3	0.3	16.5
Oregon	40,914	0.0	0.1	0.8	9.3	8.2	14.4	1.0	9.3
Pennsylvania	132,622	0.0	0.6	0.7	12.4	10.3	18.4	1.1	12.3
Rhode Island	10,464	0.0	0.0	0.3	11.4	11.0	25.7	0.2	11.4
South Carolina	57,185	0.0	0.2	0.4	18.1	16.3	21.9	0.2	15.8
South Dakota	11,369	0.0	0.1	0.4	13.5	11.0	13.2	0.1	11.1
Tennessee	81,717	0.0	0.1	0.4	13.6	12.5	20.0	0.2	13.0
Texas	373 <b>,</b> 594	0.0	0.1	0.4	12.1	11.4	17.0	0.2	13.4
Utah	46,712	0.0	0.2	2.5	8.4	5.6	11.8	1.4	7.1
Vermont	5,384	-	0.0	0.5	9.6	5.2	9.6	0.6	9.3
Virginia	95 <b>,</b> 825	0.0	0.3	1.1	10.6	9.3	16.7	0.3	9.7
Washington	83,911	0.0	0.7	3.5	14.8	9.6	21.8	3.7	15.0
West Virginia	17,198	0.0	0.3	0.5	14.6	1.1	15.0	0.4	14.4
Wisconsin	61,781	0.0	0.1	0.7	36.7	33.6	37.3	0.4	36.6
Wyoming	6,237	-	0.0	1.3	14.6	12.0	17.3	2.6	15.2
Puerto Rico	19,304	0.0	0.0	0.1	5.6	5.0	7.3	0.1	5.4
Virgin Islands	903	0.6	1.9	8.9	46.1	16.4	37.3	11.7	49.7
Guam	2,623	0.1	3.0	5.9	35.0	33.7	37.3	1.5	33.5
American Samoa <sup>2</sup>									
Northern Marianas	570	_	_	0.5	6.7	6.7	7.5	_	7.0

See footnotes at end of table.

Table B. Percent of birth records on which specified items were not stated: United States and each state and territory, New York City, and the District of Columbia, 2021--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 <sup>1</sup>	0.	0 0.1	2.1	2.0	0.5	1.7	2.7	1.1	0.3
Alabama			0.3	0.3	0.1	0.6	1.1	0.1	0.0
Alaska		- 0.0	1.9	2.6	0.5	2.5	5.8	1.9	1.9
Arizona	0.	0.0	1.7	1.0	0.2	1.0	1.2	0.6	0.0
Arkansas	0.	0.0	1.0	0.9	0.3	2.5	3.9	0.9	0.3
California	0.	0 0.1	1.5	1.9	0.4	2.4	2.9	0.7	0.1
Colorado	0.		1.9	1.8	0.8	3.4	4.0	1.4	0.1
Connecticut		- 0.0	0.7	0.6	0.1	0.4	0.9	0.2	0.1
Delaware			1.4	1.0	0.7	1.0	2.2	5.7	0.3
District of Columbia	0.	0.0	3.2	3.3	1.6		3.6	1.7	0.1
Florida	0.		3.6	3.0	0.9		5.5	1.5	1.3
Georgia	0.		0.8	0.7	0.1		0.6	0.7	
_						0.3			0.2
Hawaii	0.		7.5	8.3	0.3	4.5	5.0	9.5	-
Idaho	0.		0.8	1.0	0.2	1.3	2.4	0.8	0.4
Illinois	0.		2.3	2.3	0.2		3.0	0.6	0.4
Indiana	0.		0.2	0.2	0.2	0.8	1.1	1.0	0.2
Iowa			0.3	0.3	0.1	0.2	1.2	0.3	0.1
Kansas			1.0	0.7	0.2	0.7	1.2	0.2	0.0
Kentucky	0.		2.4	2.2	0.1	0.5	1.0	0.9	0.0
Louisiana		- 0.1	3.8	2.0	0.2	1.5	2.5	1.5	0.1
Maine		- 0.0	0.8	0.5	0.3	2.6	3.3	0.3	0.1
Maryland	0.	0 0.1	3.6	3.6	0.7	1.3	3.3	1.2	0.0
Massachusetts	0.	0.0	1.5	1.4	0.7	2.0	3.0	1.7	0.7
Michigan		- 0.0	1.3	0.7	0.2	1.0	2.0	1.2	0.4
Minnesota		- 0.1	0.6	0.8	0.3	1.0	1.7	0.3	0.1
Mississippi		- 0.0	1.0	0.5	0.0	0.3	0.9	0.2	0.0
Missouri	0.		2.9	4.2	0.9	1.9	3.9	2.3	0.4
Montana			0.2	0.2	0.1	0.3	0.6	0.1	0.0
Nebraska	0.	0 -	1.4	1.4	0.3		1.9	0.5	0.1
Nevada	0.		1.7	1.9	1.1	2.3	2.6	1.4	0.1
New Hampshire		- 0.0	1.9	0.4	0.6		3.3	1.5	0.3
New Jersey		- 0.0	1.6	0.8	0.3		2.3	2.7	0.0
New Mexico		_	2.4	3.1	0.2		1.6	0.4	0.1
New York (excluding NYC)		- 0.1	3.1	4.0	1.7	3.9	4.7	2.0	0.8
New York City		- 0.0	2.8	2.6	0.1	0.7	1.2	0.8	0.2
North Carolina	0.		0.9	1.0	0.2		3.1	0.3	0.0
North Dakota	0.		2.9	3.5	0.1	1.4	1.8	2.1	0.1
Ohio	0.	- 0.0	0.8	0.9	0.2		2.1	0.5	0.2
Oklahoma		- 0.1	1.3	1.4	0.1	0.6	1.8	0.8	0.2
		- 0.0	0.6	0.7	0.2		1.6	0.9	0.2
Oregon		- 0.0	3.7	3.8	0.8		4.8	3.0	0.4
Pennsylvania	0						1.5		
Rhode Island	0.		0.3	1.3	0.0			0.2	0.5
South Carolina	0.		0.2	0.2	0.5		1.8	1.1	0.0
South Dakota		- 0.0	1.0	0.9	0.2		1.1	1.0	0.4
Tennessee		- 0.0	1.9	2.0	0.1	0.4	1.3	0.7	0.0
Texas	0.		2.7	2.0	0.4		0.9	0.0	0.0
Utah		- 0.0	1.0	1.3	0.3		1.6	1.7	0.1
Vermont			1.2	0.5	0.1	1.7	2.7	1.5	0.1
Virginia	0.		1.4	0.7	0.5		2.1	0.9	0.2
Washington	0.		11.0	10.8	3.0		13.8	5.2	3.7
West Virginia		- 0.3	1.2	1.8	0.1	0.6	4.1	1.2	0.5
Wisconsin		- 0.0	1.6	1.9	0.3		3.8	1.6	0.0
Wyoming	0.	0.0	1.7	1.5	0.6	0.7	1.3	0.1	0.0
Puerto Rico		- 0.0	0.5	0.5	0.1		0.5	0.2	0.5
Virgin Islands		- 5.2	17.1	18.2	11.2		24.3	28.8	12.3
Guam	0.	4 0.5	22.2	21.4	9.1	17.9	20.2	8.4	-
American Samoa <sup>2</sup>									
Northern Marianas			0.4	0.2		0.2	1.1		

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, 2021--Con.
[By place of residence]

		Cigarette smoking						Method of	delivery
Reporting areas	Birth interval	before and during S pregnancy	source of payment <sup>3</sup>	Risk Factors in this Pregnancy	Infections present	Obstetric Procedures	Characteristics of labor and delivery	Fetal presentation	Final route and method of delivery
Total of reporting areas <sup>1</sup>	3.1	0.4	0.8	0.1	0.4	0.2	0.1	0.3	0.1
Alabama	1.4	0.1	0.0	-	0.0	0.0	-	0.0	0.0
Alaska	3.9	2.5	1.5	0.6	0.7	0.5	0.3	0.4	0.1
Arizona	0.4	0.1	0.1	_	0.0	_	0.0	0.1	0.0
Arkansas	2.4	0.4	1.1	0.0	0.0	-	0.0	0.1	0.0
California	0.7	0.3	0.2	0.1	0.4	0.4	0.2	0.2	0.0
Colorado	3.4	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Connecticut	2.3	0.1	0.1	0.1	0.1	0.2	0.0	0.0	0.0
Delaware	2.9	0.5	0.5	0.2	0.8	0.2	0.1	0.1	0.1
District of Columbia	4.8	1.2	0.3	0.1	1.2	0.4	0.1	0.2	0.0
Florida	2.5		0.6	0.3	0.6	0.4	0.0		0.2
Georgia	2.5		0.1	0.1		0.1			0.1
Hawaii	2.8		0.2	_		_		0.9	0.0
Idaho	1.6		0.3	0.1	0.3	0.1	0.1		0.0
Illinois	2.1		0.2	0.1		0.1	0.0		0.0
Indiana	2.8		0.3	0.6		0.1	0.0		0.0
Iowa	2.3		0.1	0.0		0.0			0.0
Kansas	1.3		1.4	0.0		0.0			0.0
Kentucky	2.2		0.6	0.5		0.4			0.1
Louisiana	2.7		0.0	0.0		-			0.0
Maine	2.3		0.6	-		0.0			0.0
Maryland	4.6		0.4	0.1		0.0			
_								0.0	0.0
Massachusetts	3.5		1.0	0.3		1.0			1.0
Michigan	3.5		0.8	0.1		0.2			0.1
Minnesota	2.1		0.2	0.1		0.1	0.0		0.1
Mississippi	0.8		0.1	0.0		0.0			0.0
Missouri	5.5		2.4	0.0		-			0.2
Montana	1.0		0.1	-	0.0	0.0			0.1
Nebraska	2.1		0.4	0.2		0.2			
Nevada	1.7		0.2	-	0.0	0.0			0.0
New Hampshire	1.7		0.3	0.3		0.3			0.0
New Jersey	3.7		0.2	0.0		0.8			0.0
New Mexico	4.3		0.5	0.0		0.0		***	-
New York (excluding NYC)	6.5		0.4	0.3		0.6			0.3
New York City	5.9		0.2	0.1		0.1			0.0
North Carolina	1.8		0.2	0.0	0.6	0.0	0.0	0.0	0.1
North Dakota	3.7	0.9	1.5	-	-	-	-	-	-
Ohio 9	2.7	0.2	0.4	0.0	0.1	0.0	0.0	0.2	0.1
Oklahoma	3.3		1.4	0.0	0.0	0.0	0.0		0.0
Oregon	2.0		0.3	_		-		0.4	_
Pennsylvania	7.0		3.4	0.2	0.3	0.1	0.1		0.0
Rhode Island	1.8		0.0	0.1		0.1			0.1
South Carolina	2.5		0.1	0.1		0.0			0.0
South Dakota	2.4		0.7	0.0		0.0			_
Tennessee	3.8		0.4	0.0		0.0			_
Texas	4.9		2.0	0.1		0.0			0.1
Utah	0.8		2.5	_		-	-	0.0	0.0
Vermont	2.5		0.1	_		_	_		-
Virginia	1.1		0.3	0.0		0.0			0.0
Washington	7.9		2.9	1.2		1.7			0.0
West Virginia	3.4		0.7	0.6		0.6			-
Wisconsin	2.3		0.7	0.2		0.8			0.1
Wyoming	1.8		0.3	0.0		0.0		-	-
Puerto Rico	1.1	0.1	0.7	0.3	0.4	1.0	1.3	0.6	0.0
Virgin Islands	39.5		21.5	5.5		4.0			4.8
Guam	7.2		13.1	6.6		1.0			2.0
American Samoa <sup>2</sup>									
	1 /								
Northern Marianas	1.4	1.2	<del>_</del> _	<del>_</del>	0.2	<del>_</del>		<del>_</del> _	<u>-</u> _

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, 2021--Con. [By place of residence]

			Obstetric estimate —	Apgar so	core	Abnormal	Congenital	4
Reporting area	Maternal morbidity	Birthweight	of gestation	5-minute	10-minute	conditions	anomalies of the newborn	Infant breastfed '
Total of reporting areas 1	0.2	0.1	0.1	0.5	0.5	0.2	0.2	0.
Alabama	0.0	0.0	0.0	0.3	0.3	-	0.0	0.
laska	0.4	0.1	0.1	0.7	0.8	0.4	0.0	0.
rizona	-	0.1	0.1	0.2	0.2	-	-	0.
rkansas	0.0	0.1	0.1	0.3	0.3	0.0	0.0	0.
California	0.2	0.0	0.0	1.0	1.3	0.4	0.4	
colorado	0.0	0.4	0.1	0.5	0.6	0.3	0.6	0.
connecticut	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.
elaware	0.4	0.0	0.0	0.2	0.2	0.2	0.1	1.
istrict of Columbia	0.0	0.0	0.1	0.4	0.4	0.0	0.0	2.
lorida	0.4	0.0	0.1	0.6	0.6	0.5	0.9	
Georgia	0.1	0.1	0.0	0.3	0.4	0.1	0.1	0.
Hawaii	-	0.1	0.1	0.3	0.3	-	0.0	
Idaho	0.1	0.1	0.0	0.6	0.7	0.1	0.0	
Illinois	0.1	0.0	0.0			0.0		0.
				0.2	0.2		0.1	
Indiana -	0.1	0.0	0.0	0.2	0.2	0.0	0.4	
Towa	0.0	0.0	0.1	0.4	0.5	0.0	0.0	
Kansas	0.0	0.0	0.1	0.4	0.4	0.0	0.0	
Kentucky	0.4	0.0	0.0	0.4	0.4	0.4	0.5	
Louisiana	<del>-</del>	0.0	0.1	0.2	0.2	0.0	0.0	
Maine	0.1	0.1	0.1	0.4	0.4	0.0	0.0	
Maryland	0.1	0.0	0.1	0.3	0.3	0.0	0.0	
Massachusetts	1.0	1.0	0.8	1.2	1.2	1.0	1.0	
Iichigan	0.2	0.1	0.1	0.2	0.3	0.1	0.3	
Iinnesota	0.1	0.1	0.1	0.3	0.4	0.0	0.0	0.
Mississippi	0.0	0.1	0.0	0.8	0.8	0.0	0.0	0.
Iissouri	-	0.1	0.1	0.5	0.6	-	-	2.
Iontana	0.0	0.1	0.1	0.2	0.2	0.1	0.0	0.
lebraska	0.0	0.0	0.0	0.6	0.6	0.0	0.1	0.
levada	0.0	0.0	0.0	0.1	0.1	-	_	1.
Jew Hampshire	0.3	0.2	0.2	0.4	0.5	0.3	0.5	0.
lew Jersey	0.3	0.0	0.0	0.3	0.3	0.0	0.2	
Jew Mexico	_	0.0	0.1	0.3	0.3	_	_	
New York (excluding NYC)	0.4	0.3	0.3	0.7	0.7	0.4	0.4	
New York City	0.1	0.0	0.0	0.3	0.4	0.1	0.2	
North Carolina	0.0	0.1	0.0	0.4	0.4	0.0	0.0	
North Dakota	-	0.0	0.1	0.3	0.4	-	-	
Ohio	0.0	0.1	0.1	0.3	0.4	0.0	0.0	
Oklahoma	0.0	0.1	0.1	0.2	0.3	0.1	0.1	1.
	0.6	0.0	0.0	0.3	0.3	0.0	0.1	
Oregon	0.6	0.0	0.2		0.5	0.4	0.0	
Pennsylvania	0.0	0.1	0.0	0.5 0.4	0.4	0.4	0.0	
Rhode Island								
South Carolina	0.6	0.0	0.0	0.3	0.3	0.1	0.1	0.
South Dakota	0.1	0.1	0.0	0.5	0.6	0.0	0.0	
Cennessee	0.0	0.0	0.1	0.3	0.4	0.0	0.0	
Texas	0.0	0.0	0.0	0.2	0.2	0.0	0.0	
Jtah	-	0.0	0.0	0.5	0.5	-	-	
/ermont	0.0	0.1	0.1	0.6	0.6	-	0.0	
irginia	0.0	0.1	0.0	0.3	0.5	0.0	0.0	
ashington	1.2	0.1	0.2	0.9	0.9	0.0	0.0	
est Virginia	0.6	0.1	0.0	0.4	0.5	0.4	0.0	
isconsin	0.1	0.1	0.1	0.5	0.5	0.1	0.4	
yoming	-	0.0	0.0	0.5	0.6	0.0	0.1	0.
uerto Rico	1.2	0.0	0.0	0.2	0.2	0.3	0.5	
Virgin Islands	5.0	2.7	2.4	2.7	2.9	3.2	3.5	
Guam	2.7	0.7	0.9	1.1	2.9	1.0	0.9	11.
American Samoa <sup>2</sup>								

0.0 Quantity more than zero but less than 0.05.

<sup>---</sup>Data not available.

<sup>-</sup> Quantity zero.

<sup>&</sup>lt;sup>1</sup> Excludes data for Puerto Rico, Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Marianas.

 $<sup>^{2}</sup>$  American Samoa has not yet adopted the 2003 U.S. Standard Certificate of Live Birth.

<sup>&</sup>lt;sup>3</sup> Expanded source of payment categories reported by 35 states and the District of Columbia; see Detailed technical notes.

<sup>4</sup> 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: United States, 2021

[Populations estimated as of July 1]

							Fen	nale populati	on				
Race and Hispanic orig	jin	Total population	15-44 years	10-14 years	Total	15-19 years 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	331,893,745	65,080,433	10,459,561	10,541,690	6,351,879	4,189,811	10,550,759	11,013,419	11,428,324	11,035,485	10,510,756	9,905,753
Non-Hispanic, single-r	race\2												
White Black American Indian or Asian Native Hawaiian or		196,833,431 41,858,536 2,451,916 19,685,901 626,246	35,160,048 9,118,503 521,656 4,449,096 138,254	5,161,695 1,455,940 88,309 540,701 21,418	5,408,191 1,442,396 88,710 563,597 21,194	3,235,996 866,631 53,892 334,714 12,869	2,172,195 575,765 34,818 228,883 8,325	5,559,432 1,496,428 89,209 605,414 20,601	1,627,392 93,375	92,329	1,476,602 82,133 873,370	1,415,974 75,900 804,879	1,315,950 70,278 767,651
Hispanic\3 Total Mexi	can	62,647,044	13,980,437	2,721,973 	2,613,433	1,596,168 	1,017,265	2,428,365	2,372,231	2,260,901 	2,192,272 		
Puer	to Rican												
Cuba	n												
Domi	nican												
Othe	r Hispanic\4												

<sup>---</sup> Data not available.

NOTES: Population count estimates are based on the 2020 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, 2021). Population estimates for Hispanic total are based on the 2020 census, as of Juy 1, 2021. 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 references 51 and 56.

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> Includes all persons of Hispanic origin of any race.

<sup>4</sup> Includes Central and South American and other and unknown Hispanic.

	car population, is	emare popuration	aged 15-44 years, a	and age-specific	remare populatio				1, 2021			
Geographic Area	Total population				15-19 years		Female population					
000g2up20 10u	Population	15-44 years	10-14 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
United States	331,893,745	65,080,433	10,459,561	10,541,690	6,351,879	4,189,811	10,550,759	11,013,419	11,428,324	11,035,485	10,510,756	9,905,75
Alabama	5 <b>,</b> 039 <b>,</b> 877	976,400	159,751	150 212	06 146	63 <b>,</b> 167	164 040	162,974	169,551	160,798	158 <b>,</b> 824	154 05
Alaska	732,673	144,275	24,599	159,313 21,611	96,146 14,050	7,561	164,940 21,417	25,451	27,778	26,027	21,991	154,95° 19,06°
Arizona	7,276,316	1,404,610	233,292	235,502	141,404	94,098	238,874	242,715	240,794	227,728	218,997	208,532
Arkansas	3,025,891	583,039	99,971	98,289	60,360	37 <b>,</b> 929	98 <b>,</b> 509	96,866	99,656	95 <b>,</b> 953	93,766	88,97
California	39,237,836	7,973,291	1,251,643	1,257,351	758 <b>,</b> 597	498,754	1,237,296	1,381,494	1,458,475	1,365,547	1,273,128	1,208,28
Colorado	5,812,069	1,199,633	178,004	180,785	109,194	71,591	181,229	212,532	221,979	210,932	192,176	171,39
Connecticut	3,605,597	684,946	106,403	118,429	68,315	50,114	116,821	109,747	112,662	115,719	111,568	108,41
Delaware	1,003,384	185 <b>,</b> 597	29,810	31,410	18,376	13,034	28 <b>,</b> 509	30,503	33,895	31,322	29,958	27,89
District of Columbia	670,050	177,738	15,686	18,829	7,906	10,923	25,320	38,446	39,132	32,130	23,881	18,14
Florida	21,781,128	3,935,590	608 <b>,</b> 982	601,366	370,642	230,724	617,222	656,066	708,224	685 <b>,</b> 929	666 <b>,</b> 783	658,04
Georgia	10,799,566	2,220,822	365,914	370,346	224,283	146,063	360,140	371,767	384,187	369,969	364,413	353,16
Hawaii	1,441,553	2,220,822	41,260	37,673	23,358	14,315	39,565	44,646	48,646	48,339	45,019	
Idaho	1,900,923	369,349	68,419	65,600	41,158	24,442	59 <b>,</b> 359	59,594	62,199	62,317	60,280	41,123 52,569
Illinois			401,670	407,131				422,376		423,889		
Indiana	12,671,469 6,805,985	2,491,982 1,328,151	224,840	226,218	248,613 136,646	158,518 89,572	401,847 232,581	221,470	427,415 220,895	215,505	409,324 211,482	385,048 199,05
Iowa	3,193,079	606,327	104,395	107,213	63,185	44,028	109,852	97,289	95,859	99,602	96,512	199 <b>,</b> 05
Kansas	2,934,582	568,631	100,786	99,154	59,900	39,254	109,832	97,289	91,258	95,667	89 <b>,</b> 187	79,41
Kentucky	4,509,394	858,580	142,509	143,068	86,909	56,159	145,178	143,523	146,119	139,501	141,191	134,99
Louisiana	4,624,047	916,561	152,705	145,628	90,372	55,256	148,386	151,231	163,309	159,916	148,091	131,36
Maine	1,372,247	240,818	36,054	38,250	22,814	15,436	36,666	39,886	43,089	42,377	40,550	39,862
Maryland	6,165,129	1,211,511	192,966	193,085	116,398	76,687	184,420	197,330	216,114	216,420	204,142	190,50
Massachusetts	6,984,723	1,411,968	192,286	227,907	122,107	105,800	242,286	241,710	248,350	235,535	216,180	208,862
Michigan	10,050,811	1,895,491	304,296	316,304	189,907	126,397	330,197	323,594	323,784	303,016	298,596	289,90
Minnesota	5,707,390	1,100,012	186,428	183,825	113,289	70,536	175,234	180,099	185,979	195,187	179,688	156,13
Mississippi	2,949,965	578,878	100,597	99,415	60,806	38,609	97,974	95,560	96,871	94,497	94,561	89,67
Missouri	6,168,187	1,188,835	195,140	194,146	118,709	75,437	198,053	200,131	205,175	200,980	190,350	175,18
Montana	1,104,271	205,095	33,534	32,607	20,035	12,572	34,633	34,574	34,991	35,108	33,182	28,823
Nebraska Nevada	1,963,692	382,026	67,454	67,606	40,462	27,144	66,848	62,238	60,877	64,397	60,060	53,00
New Hampshire	3,143,991 1,388,992	614,950 253,077	100,654 36,923	91,940 41,952	59,384 23,884	32,556 18,068	89,610 42,490	108,068 41,945	114,839 43,902	108,915 42,719	101,578 40,069	96,180 40,06
	, , , , , , ,			,	, , , ,	,,,,,,	,	, ,	, , , ,	,	,,,,,,	, , , ,
New Jersey	9,267,130	1,749,003	287,912	283,501	177,163	106,338	272 <b>,</b> 358	287,683	299 <b>,</b> 596	304 <b>,</b> 732	301,133	292 <b>,</b> 25
New Mexico	2,115,877	404,689	69,886	69,570	42,341	27,229	67 <b>,</b> 805	67,178	68 <b>,</b> 807	68 <b>,</b> 299	63,030	58,16
New York	19,835,913	3,898,025	566,222	592,626	346,938	245,688	622,516	693,194	711,947	660 <b>,</b> 282	617,460	591 <b>,</b> 903
North Carolina	10,551,162	2,073,428	330,320	342,077	200,916	141,161	340 <b>,</b> 552	349,349	362,120	341 <b>,</b> 519	337,811	332,212
North Dakota	774,948	151 <b>,</b> 710	25,198	24,554	14,386	10,168	29,108	26,106	25,701	24 <b>,</b> 785	21,456	18,433
Ohio	11,780,017	2,240,106	366,315	373,485	225,590	147,895	368 <b>,</b> 867	380,079	390,547	370 <b>,</b> 309	356,819	339,27
Oklahoma	3,986,639	786 <b>,</b> 897	136,815	132,133	80,832	51,301	133,665	130,100	134,393	132,940	123,666	112,45
Oregon	4,246,155	835 <b>,</b> 879	124,767	122,164	74,332	47,832	128,085	141,420	152,525	149,548	142,137	126,378
Pennsylvania	12,964,056	2,425,434	378,713	401,993	233,114	168,879	390,861	403,922	432,604	410,021	386,033	367,29
Rhode Island	1,095,610	216,511	29,165	36,617	18,607	18,010	37 <b>,</b> 606	36,203	38,803	34,898	32,384	31,18
South Carolina	5,190,705	993 <b>,</b> 775	163,112	161,737	96,742	64,995	161,326	165,632	177,090	166,370	161,620	155,87
South Dakota	895 <b>,</b> 376	165 <b>,</b> 766	30 <b>,</b> 657	29,505	17,940	11,565	28 <b>,</b> 557	26,862	27 <b>,</b> 450	27 <b>,</b> 568	25 <b>,</b> 824	22,17
Tennessee	6,975,218	1,367,581	217,759	214,193	132,141	82,052	223 <b>,</b> 447	241,092	243,265	225 <b>,</b> 343	220,241	213,213
Texas	29,527,941	6,156,590	1,066,749	1,035,425	636 <b>,</b> 758	398,667	992 <b>,</b> 594	1,032,106	1,063,065	1,046,921	986 <b>,</b> 479	919,70
Utah	3,337,975	734 <b>,</b> 008	135,799	132,487	81,849	50,638	135 <b>,</b> 230	123,262	115,362	113,983	113,684	92,50
Vermont	645 <b>,</b> 570	119 <b>,</b> 980	16,664	20,644	10,495	10,149	22 <b>,</b> 246	18,838	19,308	19,821	19 <b>,</b> 123	17,91
Virginia	8,642,274	1,709,257	265,171	273 <b>,</b> 055	160,683	112,372	275 <b>,</b> 701	284,985	297 <b>,</b> 465	296,015	282 <b>,</b> 036	264,21
Washington	7,738,692	1,548,735	237,420	224,472	138,470	86,002	228 <b>,</b> 298	270,127	293,619	279 <b>,</b> 494	252 <b>,</b> 725	224,56
West Virginia	1,782,959	314,167	51,338	51,690	31,252	20,438	53 <b>,</b> 670	51,032	52,298	50 <b>,</b> 659	54,818	53 <b>,</b> 76
Wisconsin	5,895,908	1,108,341	183,101	189,414	112,596	76,818	193 <b>,</b> 825	181,232	178,029	186,860	178 <b>,</b> 981	162,84
Wyoming	578 <b>,</b> 803	108,480	19,507	18,395	11,525	6 <b>,</b> 870	17,710	17,103	18,326	19,177	17,769	15,30
Puerto Rico	3,263,584	626,240	88,092	95,991	56,977	39,014	108,109	111,589	105,832	96,758	107,961	107,67
Virgin Islands	105,870	18,672	3,642	2,913	1,813	1,100	2,622	3,090	3,313	3,817	2,917	3,39
Guam	168,801	32,751	7,088	6,296	3,837	2,459	6,165	5,916	5,313 5,376	4,626	4,372	4,65
American Samoa	46,366	10,256	2,036	2,237	1,409	828	1,865	2,045	1,563	1,308	1,238	1,30
Northern Marianas	51,659	9,075	2,036	2,237	1,358	789	1,825	1,613	972	932	1,586	1,75

SOURCE: U.S. Census Bureau. See references 51-53.

# Table 3. Population of the United States, 2010-2021

[Population enumerated as of April 1 for 2010 and 2020 and estimated as of July 1 for all other years]

	<u> </u>	-		
	United States			
Year	Population including Armed Forces abroad	Population residing in area		
2021	332,140,523	331,893,745		
2020	331,693,822	331,449,281		
2019	328,475,998	328,239,523		
2018	327,403,909	327,167,434		
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 references 58.

Documentation Table 1. Number and percentage of live births by race and Hispanic origin of mother: United States, 2021

Race	Number		Percentage	
race	Total	Non-Hispanic	Total\1	Non-Hispanic
All races\2	3,664,292	2,741,995	100.0	100.0
One race	3,560,161		97.2	
White	2,707,978		73.9	68.8
Black	577,041		15.7	
American Indian and Alaska Native (AIAN)	34,856		1.0	1.0
Asian	227,086		6.2	7.8
Native Hawaiian and Other Pacific Islander (NHOPI)	13,200		0.4	0.3
More than one race	104,131		2.8	3.2
Two races	94,715		2.6	2.9
Black and White	44,220	37,534	1.2	1.4
Black and AIAN	3,052		0.1	0.1
Black and Asian	2,658	2,410	0.1	0.1
Black and NHOPI	663	572	0.0	0.0
AIAN and White	16,551	13,030	0.5	0.5
AIAN and Asian	420		0.0	0.0
AIAN and NHOPI	138	98	0.0	0.0
Asian and White	21,905	19,168	0.6	0.7
Asian and NHOPI	2,254	2,058	0.1	0.1
NHOPI and White	2,854		0.1	0.1
Three races	8,929		0.2	0.2
Black, AIAN and White	2,924	2,244	0.1	0.1
Black AIAN and Asian	117		0.0	0.0
Black, AIAN and NHOPI	55	39	0.0	0.0
Black, Asian and White	1,152	932	0.0	0.0
Black, Asian and NHOPI	143	124	0.0	0.0
Black, NHOPI, and White	222	163	0.0	0.0
AIAN, Asian and White	504	357	0.0	0.0
AIAN, NHOPI and White	133	89	0.0	0.0
AIAN, Asian and NHOPI	42	25	0.0	0.0
Asian, NHOPI and White	3,637	2,628	0.1	0.1
Four races	458	293	0.0	0.0
Black, AIAN, Asian and White	134		0.0	0.0
Black, AIAN, Asian, and NHOPI	8	5	*	*
Black, AIAN, NHOPI and White	29		0.0	*
Black, Asian, NHOPI and White	97	68	0.0	0.0
AIAN, Asian, NHOPI and White	190		0.0	0.0
Five races				
Black, AIAN, Asian, NHOPI and White	29	16	0.0	*

<sup>0.0</sup> Quantity more than zero but less than 0.5.

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

<sup>\*</sup> Estimate does not meet NCHS standards of reliability.

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

<sup>\2</sup> 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.