

**User Guide
to the
2023 Natality
Public Use File**



**U.S. CENTERS FOR DISEASE
CONTROL AND PREVENTION**

Acknowledgments

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Additional detailed tables available with the release of the “Births: Final Data for 2023”

Control Count of Records
2023 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	3,605,081	22,441
By occurrence	3,605,081	22,441
By residence	3,596,017	22,356
To foreign residents	9,064	85

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Position	Length	Field	Description	Values	Definition
1-8	8	FILLER	Filler	Blank	
9-12	4	DOB_YY	Birth Year	2023	Year of birth
13-14	2	DOB_MM	Birth Month	01 02 03 04 05 06 07 08 09 10 11 12	January February March April May June July August September October November December
15-18	4	FILLER	Filler	Blank	
19-22	4	DOB_TT	Time of Birth	0000-2359 9999	Time of Birth Not Stated
23	1	DOB_WK	Birth Day of Week	1 2 3 4 5 6 7	Sunday Monday Tuesday Wednesday Thursday Friday Saturday
24-31	8	FILLER	Filler	Blank	
32	1	BFACIL	Birth Place	1 2 3 4 5 6 7 9	Hospital Freestanding Birth Center Home (intended) Home (not intended) Home (unknown if intended) Clinic / Doctor's Office Other Unknown
33	1	F_BFACIL	Reporting Flag for Birth Place	0 1	Non-Reporting Reporting
34-49	16	FILLER	Filler	Blank	

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

Position	Length	Field	Description	Values	Definition
50	1	BFACIL3	Birth Place Recode	1 2 3	In Hospital Not in Hospital Unknown or Not Stated
51-72	22	FILLER	Filler	Blank	
<hr/>					
73	1	MAGE_IMPFLG	Mother's Age Imputed Due to missing data, age imputed.	Blank 1	Age not imputed Age imputed
74	1	MAGE_REPFLG	Reported Age of Mother Used Flag Due to missing date of birth, reported age used.	Blank 1	Reported age not used Reported age used
75-76	2	MAGER	Mother's Single Years of Age	12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43	10 – 12 years 13 years 14 years 15 years 16 years 17 years 18 years 19 years 20 years 21 years 22 years 23 years 24 years 25 years 26 years 27 years 28 years 29 years 30 years 31 years 32 years 33 years 34 years 35 years 36 years 37 years 38 years 39 years 40 years 41 years 42 years 43 years

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

Position	Length	Field	Description	Values	Definition
				44	44 years
				45	45 years
				46	46 years
				47	47 years
				48	48 years
				49	49 years
				50	50 years and over
77-78	2	MAGER14	Mother's Age Recode 14	01	Under 15 Years
				03	15 years
				04	16 years
				05	17 years
				06	18 years
				07	19 years
				08	20-24 years
				09	25-29 years
				10	30-34 years
				11	35-39 years
				12	40-44 years
				13	45-49 years
				14	50-54 years
79	1	MAGER9	Mother's Age Recode 9	1	Under 15 years
				2	15-19 years
				3	20-24 years
				4	25-29 years
				5	30-34 years
				6	35-39 years
				7	40-44 years
				8	45-49 years
				9	50-54 years
80-83	4	FILLER	Filler	Blank	
84	1	MBSTATE_REC	Mother's Nativity	1	Born in the U.S. (50 US States)
				2	Born outside the U.S. (includes possessions)
				3	Unknown or Not Stated
85-103	19	FILLER	Filler	Blank	
104	1	RESTATUS	Residence Status <u>United States</u>	1	RESIDENT: State and county of occurrence and residence are the same.
				2	INTRASTATE NONRESIDENT: State of occurrence and residence are the same but county is different.

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

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

Position	Length	Field	Description	Values	Definition
				31	Black, AIAN, Asian, NHOPI, and White
107	1	MRACE6	Mother's Race Recode 6 <u>United States and all Outlying Areas of the United States except Puerto Rico</u>	1 2 3 4 5 6	White (only) Black (only) AIAN (only) Asian (only) NHOPI (only) More than one race
108-109	2	MRACE15	Mother's Race Recode 15 <u>United States and all Outlying Areas of the United States except Puerto Rico</u>	01 02 03 04 05 06 07 08 09 10 11 12 13 14 15	White (only) Black (only) AIAN (only) Asian Indian (only) Chinese (only) Filipino (only) Japanese (only) Korean (only) Vietnamese (only) Other Asian (only) Hawaiian (only) Guamanian (only) Samoan (only) Other Pacific Islander (only) More than one race
110	1	FILLER	Filler	Blank	
111	1	MRACEIMP	Mother's Race Imputed Flag	Blank 1 2	Mother's race not imputed Unknown race imputed All other races, formerly coded 09, imputed.
112	1	MHISPX	Mother's Hispanic Origin	0 1 2 3 4 5 6 9	Non-Hispanic Mexican Puerto Rican Cuban Central or South American Dominican Other and Unknown Hispanic Origin unknown or not stated
113-114	2	FILLER	Filler	Blank	
115	1	MHISP_R	Mother's Hispanic Origin Recode	0 1	Non-Hispanic Mexican

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Position	Length	Field	Description	Values	Definition
				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 Based on single/multiple-race (fields 105-106, 107, and 108-109).	1	Non-Hispanic White (only)
				2	Non-Hispanic Black (only)
				3	Non-Hispanic AIAN (only)
				4	Non-Hispanic Asian (only)
				5	Non-Hispanic NHOPI (only)
				6	Non-Hispanic more than one race
				7	Hispanic
				8	Origin unknown or not stated
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		
			<u>United States and all Outlying Areas of the United States except Puerto Rico</u>	1	Married
				2	Unmarried
			<u>Puerto Rico</u>	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
				1	Reporting
124	1	MEDUC	Mother's Education	1	8 th grade or less
				2	9 th through 12 th grade with no diploma
				3	High school graduate or GED completed
				4	Some college credit, but not a degree.

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

Position	Length	Field	Description	Values	Definition
				5	Associate degree (AA,AS)
				6	Bachelor's degree (BA, AB, BS)
				7	Master's degree (MA, MS, MEng, MEd, MSW, MBA)
				8	Doctorate (PhD, EdD) or Professional Degree (MD, DDS, DVM, LLB, JD)
				9	Unknown
125	1	FILLER	Filler	Blank	
126	1	F_MEDUC	Reporting Flag for Education of Mother	0	Non-Reporting
				1	Reporting
127-141	15	FILLER	Filler M	Blank	

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

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

Position	Length	Field	Description	Values	Definition
				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)
				15	More than one race

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Position	Length	Field	Description	Values	Definition
				99	Unknown or Not Stated
156-158	3	FILLER	Filler	Blank	
159	1	FHISPX	Father's Hispanic Origin	0 1 2 3 4 5 6 9	Non-Hispanic Mexican Puerto Rican Cuban Central or South American Dominican Other and Unknown Hispanic Origin unknown or not stated
160	1	FHISP_R	Father's Hispanic Origin Recode	0 1 2 3 4 5 9	Non-Hispanic Mexican Puerto Rican Cuban Central and South American Other and Unknown Hispanic origin Hispanic origin not stated
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 9	8 th grade or less 9 th through 12 th grade with no diploma High school graduate or GED completed Some college credit, but not a degree. Associate degree (AA,AS) Bachelor's degree (BA, AB, BS) Master's degree (MA, MS, MEng, MEd, MSW, MBA) Doctorate (PhD, EdD) or Professional Degree (MD, DDS, DVM, LLB, JD) Unknown
164	1	FILLER	Filler	Blank	

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Position	Length	Field	Description	Values	Definition
165	1	f_FEDUC	Reporting Flag for Education of Father	0 1	Non-Reporting Reporting
166-170	5	FILLER	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	Prior Other Terminations	00-30 99	Number other terminations Unknown or not stated
177-178	2	FILLER	Filler	Blank	
179	1	LBO_REC	Live Birth Order Recode	1-7 8 9	Number of live birth order. 8 or more live births Unknown or not stated
180-181	2	FILLER	Filler	Blank	
182	1	TBO_REC	Total Birth Order Recode	1-7 8 9	Number of total birth order. 8 or more total births Unknown or not stated
183-197	15	FILLER	Filler	Blank	
198-200	3	ILLB_R	Interval Since Last Live Birth Recode Use reporting flag in field 126	000-003 004-300 888 999	Plural delivery Months since last live birth Not applicable / 1 st live birth Unknown or not stated
201-202	2	ILLB_R11	Interval Since Last Live Birth Recode 11 Use reporting flag in field 126	00 01 02 03 04 05 06 07 08 88	Zero to 3 months (plural delivery) 4 to 11 months 12 to 17 months 18 to 23 months 24 to 35 months 36 to 47 months 48 to 59 months 60 to 71 months 72 months and over Not applicable (1 st live birth)

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

Position	Length	Field	Description	Values	Definition
				99	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	000-003 004-300 888 999	Plural delivery Months since last live birth Not applicable / 1 st natality event Unknown or not stated
209-210	2	ILOP_R11	Interval Since Last Other Pregnancy Recode 11 Use reporting flag in field 126	00 01 02 03 04 05 06 07 08 88 99	Zero to 3 months (plural delivery) 4 to 11 months 12 to 17 months 18 to 23 months 24 to 35 months 36 to 47 months 48 to 59 months 60 to 71 months 72 months and over Not applicable (1 st natality event) Unknown or not stated
211-213	3	FILLER	Filler	Blank	
214-216	3	ILP_R	Interval Since Last Pregnancy Recode Use reporting flag in field 126	000-003 004-300 888 999	Plural delivery Months since last live birth Not applicable / no previous pregnancy Unknown or not stated
217-218	2	ILP_R11	Interval Since Last Pregnancy Recode 11 Use reporting flag in field 126	00 01 00 01 02 03 04 05 06 88 99	Zero to 3 months (plural delivery) 4 to 11 months 12 to 17 months 18 to 23 months 24 to 35 months 36 to 47 months 48 to 59 months 60 to 71 months 72 months and over Not applicable (no previous pregnancy) Unknown or not stated
219-223	5	FILLER	Filler	Blank	

224-225	2	PRECARE	Month Prenatal Care Began	00 01-10	No prenatal care Month prenatal care began

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

Position	Length	Field	Description	Values	Definition
				99	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 st to 3 rd month 4 th to 6 th month 7 th to final month No prenatal care Unknown or not stated
228-237	10	FILLER	Filler	Blank	
238-239	2	PREVIS	Number of Prenatal Visits	00-98 99	Number of prenatal visits Unknown or not stated
240-241	2	FILLER	Filler	Blank	
242-243	2	PREVIS_REC	Number of Prenatal Visits Recode	01 02 03 04 05 06 07 08 09 10 11 12	No visits 1 to 2 visits 3 to 4 visits 5 to 6 visits 7 to 8 visits 9 to 10 visits 11 to 12 visits 13 to 14 visits 15 to 16 visits 17 to 18 visits 19 or more visits Unknown or not stated
244	1	F_TPCV	Reporting Flag for Total Prenatal Care Visits	0 1	Non-Reporting Reporting
245-250	6	FILLER	Filler	Blank	

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

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

Position	Length	Field	Description	Values	Definition
				98	98 or more cigarettes daily
				99	Unknown or not stated
255-256	2	CIG_1	Cigarettes 1st Trimester	00-97	Number of cigarettes daily
				98	98 or more cigarettes daily
				99	Unknown or not stated
257-258	2	CIG_2	Cigarettes 2nd Trimester	00-97	Number of cigarettes daily
				98	98 or more cigarettes daily
				99	Unknown or not stated
259-260	2	CIG_3	Cigarettes 3rd Trimester	00-97	Number of cigarettes daily
				98	98 or more cigarettes daily
				99	Unknown or not stated
261	1	CIG0_R	Cigarettes Before Pregnancy Recode	0	Nonsmoker
				1	1-5
				2	6-10
				3	11-20
				4	21-40
				5	41 or more
				6	Unknown or not stated
262	1	CIG1_R	Cigarettes 1st Trimester Recode	0	Nonsmoker
				1	1-5
				2	6-10
				3	11-20
				4	21-40
				5	41 or more
				6	Unknown or not stated
263	1	CIG2_R	Cigarettes 2nd Trimester Recode	0	Nonsmoker
				1	1-5
				2	6-10
				3	11-20
				4	21-40
				5	41 or more
				6	Unknown or not stated
264	1	CIG3_R	Cigarettes 3rd Trimester Recode	0	Nonsmoker
				1	1-5
				2	6-10
				3	11-20
				4	21-40
				5	41 or more
				6	Unknown or not stated

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

Position	Length	Field	Description	Values	Definition
265	1	F_CIGS_0	Reporting Flag for Cigarettes before Pregnancy	0 1	Non-Reporting Reporting
266	1	F_CIGS_1	Reporting Flag for Cigarettes 1st Trimester	0 1	Non-Reporting Reporting
267	1	F_CIGS_2	Reporting Flag for Cigarettes 2nd Trimester	0 1	Non-Reporting Reporting
268	1	F_CIGS_3	Reporting Flag for Cigarettes 3rd Trimester	0 1	Non-Reporting Reporting
269	1	CIG_REC	Cigarette Recode	Y N U	Yes No Unknown or not stated
270	1	F_TOBACO	Reporting Flag for Tobacco use	0 1	Non-Reporting Reporting
271-279	9	FILLER	Filler	Blank	

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

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

Position	Length	Field	Description	Values	Definition
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	Filler	Blank	

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

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

Position	Length	Field	Description	Values	Definition
316	1	RF_GHYPE	Gestational Hypertension	Y N U	Yes No Unknown or not stated
317	1	RF_EHYPE	Hypertension Eclampsia	Y N U	Yes No Unknown or not stated
318	1	RF_PPTERM	Previous Preterm Birth	Y N U	Yes No Unknown or not stated
319	1	F_RF_PDIAB	Reporting Flag for Pre-pregnancy Diabetes	0 1	Non-Reporting Reporting
320	1	F_RF_GDIAB	Reporting Flag for Gestational Diabetes	0 1	Non-Reporting 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
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 1	Non-Reporting Reporting
325	1	RF_INFTR	Infertility Treatment Used	Y N U	Yes No Unknown or not stated
326	1	RF_FEDRG	Fertility Enhancing Drugs	Y N X U	Yes No Not applicable Unknown or not stated
327	1	RF_ARTEC	Asst. Reproductive Technology	Y N X U	Yes No Not applicable Unknown or not stated
328	1	f_RF_INFT	Reporting Flag for Infertility Treatment	0	Non-Reporting

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

Position	Length	Field	Description	Values	Definition
				1	Reporting
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	Filler	Blank	

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

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

Position	Length	Field	Description	Values	Definition
346	1	IP_HEPB	Hepatitis B	Y N U	Yes No Unknown or not stated
347	1	IP_HEPC	Hepatitis C	Y N U	Yes No Unknown or not stated
348	1	F_IP_GONOR	Reporting Flag for Gonorrhea	0 1	Non-Reporting Reporting
349	1	F_IP_SYPH	Reporting Flag for Syphilis	0 1	Non-Reporting Reporting
350	1	F_IP_CHLAM	Reporting Flag for Chlamydia	0 1	Non-Reporting Reporting
351	1	F_IP_HEPATB	Reporting Flag for Hepatitis B	0 1	Non-Reporting Reporting
352	1	F_IP_HEPATC	Reporting Flag for Hepatitis C	0 1	Non-Reporting Reporting
353	1	NO_INFEC	No Infections Reported	1 0 9	True False Not Reported
354-358	5	FILLER	Filler	Blank	

359-370	12	<u>Obstetric Procedures</u>			
359	1	FILLER	Filler	Blank	
360	1	OB_ECVS	Successful External Cephalic Version	Y N U	Yes No Unknown or not stated
361	1	OB_ECVF	Failed External Cephalic Version	Y N U	Yes No Unknown or not stated
362	1	FILLER	Filler	Blank	

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Position	Length	Field	Description	Values	Definition
363	1	F_OB_SUCC	Reporting Flag for Successful External Cephalic Version	0 1	Non-Reporting Reporting
364	1	F_OB_FAIL	Reporting Flag for Failed External Cephalic Version	0 1	Non-Reporting Reporting
365-382	17	FILLER	Filler	Blank	

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

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

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Position	Length	Field	Description	Values	Definition
				3	Primary C-section
				4	Repeat C-section
				5	Vaginal (unknown if previous c-section)
				6	C-section (unknown if previous c-section)
				9	Not stated
408	1	DMETH_REC	Delivery Method Recode	1	Vaginal
				2	C-Section
				9	Unknown
409	1	F_DMETH_REC	Reporting Flag for Method of Delivery Recode	0	Non-Reporting
				1	Reporting
410-414	5	FILLER	Filler	Blank	

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

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Position	Length	Field	Description	Values	Definition
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	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 9	Medicaid Private Insurance Self Pay Other Unknown

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Position	Length	Field	Description	Values	Definition
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	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	Ten Minute APGAR Score Use reporting flag in field 126	00-10 88 99	A score of 0-10 Not applicable Unknown or not stated
450	1	APGAR10R	Ten Minute APGAR Recode Use reporting flag in field 126	1 2 3 4 5	A score of 0-3 A score of 4-6 A score of 7-8 A score of 9-10 Not stated/not applicable
451-453	3	FILLER	Filler	Blank	
454	1	DPLURAL	Plurality Recode	1 2 3 4	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
457-458	2	FILLER	Filler	Blank	

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Position	Length	Field	Description	Values	Definition
459	1	SETORDER_R	Set Order Recode Use reporting flag in field 126	1 2 3 4 5 9	1 st 2 nd 3 rd 4 th 5 th to 16 th Unknown or not stated
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	Obstetric Estimate of Gestation Used Flag	Blank 1	Obstetric Estimate is not used Obstetric Estimate is used
490-491	2	COMBGEST	Combined Gestation – Detail in Weeks	17-47 99	17 th through 47 th week of Gestation Unknown

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

Position	Length	Field	Description	Values	Definition
492-493	2	GESTREC10	Combined Gestation Recode 10	01 02 03 04 05 06 07 08 09 10 99	Under 20 weeks 20-27 weeks 28-31 weeks 32-33 weeks 34-36 weeks 37-38 weeks 39 weeks 40 weeks 41 weeks 42 weeks and over Unknown
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 99	Under 20 weeks 20-27 weeks 28-31 weeks 32-33 weeks 34-36 weeks 37-38 weeks 39 weeks 40 weeks 41 weeks 42 weeks and over Unknown
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 9999	Number of grams Not stated birth weight

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Position	Length	Field	Description	Values	Definition
508	1	FILLER	Filler	Blank	
509-510	2	BWTR12	Birth Weight Recode 12	01 02 03 04 05 06 07 08 09 10 11 12	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	Filler	Blank	

517-536	20	<u>Abnormal Conditions of the Newborn</u>			
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_NICU	Admission to NICU	Y N U	Yes No Unknown or not stated
520	1	AB_SURF	Surfactant	Y N U	Yes No Unknown or not stated
521	1	AB_ANTI	Antibiotics for Newborn	Y N U	Yes No Unknown or not stated

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Position	Length	Field	Description	Values	Definition
522	1	AB_SEIZ	Seizures	Y N U	Yes No Unknown or not stated
523	1	FILLER	Filler	Blank	
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	0 1	Non-Reporting Reporting
526	1	F_AB_NIUC	Reporting Flag for Admission to NICU	0 1	Non-Reporting Reporting
527	1	F_AB_SURFAC	Reporting Flag for Surfactant	0 1	Non-Reporting Reporting
528	1	F_AB_ANTIBIO	Reporting Flag for Antibiotics	0 1	Non-Reporting Reporting
529	1	F_AB_SEIZ	Reporting Flag for Seizures	0 1	Non-Reporting Reporting
530	1	FILLER	Filler	Blank	
531	1	NO_ABNORM	No Abnormal Conditions Checked	1 0 9	True False Not Reported
532-536	5	FILLER	Filler	blank	

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

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Position	Length	Field	Description	Values	Definition
				U	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 1	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
552	1	CA_DOWN	Down Syndrome	C P	Confirmed Pending

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Position	Length	Field	Description	Values	Definition
				N	No
				U	Unknown
553	1	CA_DISOR	Suspected Chromosomal Disorder	C	Confirmed
				P	Pending
				N	No
				U	Unknown
554	1	CA_HYPO	Hypospadias	Y	Yes, anomaly reported
				N	No, anomaly not reported
				U	Unknown
555	1	F_CA_LIMB	Reporting Flag for Limb Reduction Defect	0	Non-Reporting
				1	Reporting
556	1	F_CA_CLEFTLP	Reporting Flag for Cleft Lip with or without Cleft Palate	0	Non-Reporting
				1	Reporting
557	1	F_CA_CLEFT	Reporting Flag for Cleft Palate Alone	0	Non-Reporting
				1	Reporting
558	1	F_CA_DOWNS	Reporting Flag for Down Syndrome	0	Non-Reporting
				1	Reporting
559	1	F_CA_CHROM	Reporting Flag for Suspected Chromosomal Disorder	0	Non-Reporting
				1	Reporting
560	1	F_CA_HYPOS	Reporting Flag for Hypospadias	0	Non-Reporting
				1	Reporting
561	1	NO_CONGEN	No Congenital Anomalies Checked	1	True
				0	False
				9	Not Reported
562-566	5	FILLER	Filler	Blank	

567	1	ITRAN	Infant Transferred Use reporting flag in field 126	Y	Yes
				N	No
				U	Unknown or not stated
568	1	ILIVE	Infant Living at Time of Report Use reporting flag in field 126	Y	Yes
				N	No
				U	Unknown or not stated

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

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

Position	Length	Field	Description	Values	Definition
ADDENDUM					
Detailed geographic information for the territories.					
24-25	2	OCTERR	Mother's Occurrence Territory/Possession		<u>Outlying Areas of the United States</u> AS American Samoa GU Guam MP Northern Marianas PR Puerto Rico VI Virgin Islands US United States (births to residents of the 50 states or DC) XX Not Applicable ZZ Not Classifiable
28-30	3	OCNTYFIPS	Occurrence FIPS County		<u>Puerto Rico</u> 021 Bayamo'n 025 Caguas 031 Carolina 113 Ponce 127 San Juan 999 County of less than 100,000 <u>Other Outlying Areas of the United States</u> 000 No county level geography 999 County of less than 100,000
31	1	OCNTYPOP	Occurrence County Pop		0 County of 1,000,000 or more 1 County of 500,000 to 1,000,000 2 County of 250,000 to 500,000 County of 100,000 to 250,000 4 County of 50,000 to 100,000 5 County of 25,000 to 50,000 6 County of 10,000 to 25,000 9 County less than 10,000
80-81	2	MBCNTRY	Mother's Birth Country	AA-ZZ	See Geographic Documentation
85-86	2	MRCNTRY	Mother's Residence Country	AA-ZZ	See Geographic Documentation
89-90	2	MRTERR	Mother's Residence Territory		<u>Outlying Areas of the United States</u> AS American Samoa GU Guam MP Northern Marianas PR Puerto Rico VI Virgin Islands

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

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

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DETAILED TECHNICAL NOTES
UNITED STATES
2023
NATALITY

U.S. DEPARTMENT OF
HEALTH AND HUMAN SERVICES

CENTERS FOR DISEASE CONTROL AND PREVENTION
NATIONAL CENTER FOR HEALTH STATISTICS

Hyattsville, Maryland: 2024

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 2023" [1], and are for use with the 2023 Natality public use data. The 2023 natality micro-data file may be downloaded at http://www.cdc.gov/nchs/data_access/VitalStatsOnline.htm [2]. The micro-data natality file does not include geographic detail (e.g., state or county of birth). Selected natality data, including some geographic data, are available in CDC WONDER (<http://wonder.cdc.gov>). CDC WONDER is an interactive online data access tool that provides selected natality data from 1995-2023. 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 https://www.cdc.gov/nchs/nvss/deleted_items_from_birth_fetal_death_files.htm.

Key natality items are presented in "Births in the United States, 2023," which will accompany the release of the 2023 public use file [2,3]. Information on other items can be found in the upcoming 2023 final report [1]. Additional discussion of selected items (e.g., gestational age, maternal syphilis during pregnancy, ICU admission after a live birth, and cesarean delivery) is available in recent reports [4-7]. 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 2023.

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]. See **Figure 1** for a flowchart distinguishing the definitions of each event. 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, American Samoa, and the Northern Marianas. NCHS receives these files from the registration offices of all states, the two cities and three territories through the Vital Statistics Cooperative Program. Information for Guam and the U.S. Virgin Islands for 2023 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 2023.

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., 2023 births to women aged 20-24 years and the 2023 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 2023 natality file is given in the NCHS manual, “Vital Records Geographic Classification, 2014,” and in the country, county, and place

geographic code files [21]. The geographic code structure on the 2023 file is based on results of the 2010 Census of Population. For other current and historic instruction manuals, see Instruction Manuals at http://www.cdc.gov/nchs/nvss/instruction_manuals.htm [22].

On June 6, 2022, the U.S. Census Bureau [23] adopted the nine planning regions of Connecticut as county-equivalent geographic units for the purposes of collecting, tabulating, and disseminating statistical data, replacing the previous eight counties which had ceased to function as governmental and administrative entities in 1960. This change was implemented for all Census Bureau statistical and geospatial data products starting in 2023. The 2023 natality file continued to categorize Connecticut births based on the eight counties and will categorize based on the new nine-county equivalent in future files.

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 2**). For more information on the 2003 standard certificate and details regarding the certificate revision and links to the documents referenced below, see the NCHS website of the 2003 certificate revision at http://www.cdc.gov/nchs/nvss/vital_certificate_revisions.htm. The 2003 birth certificate replaces the previous 1989 U.S. Standard Certificate of Live Birth [24,25]. Implementation of the 2003 U.S. Standard Certificate of Live Birth (revised) by the states and independent reporting areas was phased in from 2003 through 2015. 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, American Samoa had implemented the revised birth certificate as of January 1, 2019 (see User Guide to the 2015 Natality Public Use File [26] 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 [24,25]. For details on data items comparable between revisions see the User Guide to the 2014 Natality Public Use File [18]. For a list of items that were dropped in 2014 for reasons of poor data quality, see

https://www.cdc.gov/nchs/nvss/deleted_items_from_birth_fetal_death_files.htm.

A key aspect of the 2003 revision of the U.S. Standard Certificate of Live Birth was the re-engineering of the data collection and transmission system to improve data quality, speed of data collection and transmission, and to enhance standardization of data [24,27]. To encourage collection of data from the best sources, two worksheets were developed: the “Mother’s Worksheet” (available at <https://www.cdc.gov/nchs/data/dvs/moms-worksheet-2016-508.pdf>) [28] and the “Facility Worksheet” (available at <https://www.cdc.gov/nchs/data/dvs/facility-worksheet-2016.pdf>) [29]. In the Mother’s Worksheet, data are directly obtained from the mother and include items such as race, Hispanic origin and educational attainment. For the Facility Worksheet, data are obtained directly from the medical records of the mother and infant for items such as date of first prenatal care visit, pregnancy risk factors, and method of delivery. To assist hospital staff in completing the Facility Worksheet, a comprehensive instruction manual was developed: Guide to Completing the Facility Worksheets for the Certificate of Live Birth and Report of Fetal Death (2003 Revision) (“Guide to the Facility Worksheet”; available at <https://www.cdc.gov/nchs/data/dvs/GuidetoCompleteFacilityWks.pdf>) [30]. 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 [31,32].

Nativity data files

Micro-data files: Natality micro-data files for data years 1968-2023 may be downloaded at http://www.cdc.gov/nchs/data_access/VitalStatsOnline.htm. The general rules used to classify characteristics of live births are presented in several NCHS manuals [21,22,27,31,32]. These instructions are for states to use to collect and code the data items; they do not include NCHS edit recodes.

The 2003-2015 edits and natality micro-data files include data items common to both the 1989 and 2003 revisions of the U.S. Standard Certificate of Live Birth. The files also include items exclusive to the 2003 revision. See the file layout in this User Guide. Certain data items new to the 2003 revised certificate (e.g., maternal morbidity) are available beginning with data files 2009.

Beginning with the 2005 data year, the public release micro-data natality file no longer includes geographic detail (e.g., state or county of birth). Information on the data use policy is available at http://www.cdc.gov/nchs/nvss/dvs_data_release.htm [33].

Demographic Characteristics

Hispanic origin and race

Hispanic origin: Hispanic origin and race are reported separately on the birth certificate (**Figure 2**). It is recommended that this information be reported directly by the mother via the Mother's Worksheet [28].

From 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." Starting with 2023, data for "Central and South American" no longer include "Latin American," which has been moved to "Other and unknown Hispanic" to conform with the U.S. Census Bureau.

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 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 [34], 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 2023 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 [28]. 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 [25], in accordance with the revised standards issued by the Office of Management and Budget (OMB) in 1997 [35]. 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 [36-38].

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 3.0% of mothers in the U.S. reporting more than one race in 2023 (**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 2023, race of mother was imputed for 8.1% of births (by occurrence).

Age of mother

The age of mother is derived from the reported month and year of birth. It is recommended that this information be reported directly by the mother via the [Mother's Worksheet](#) [28]. For American Samoa, exact age of mother was reported.

Imputation of age of mother: Age of mother is imputed for ages 8 years or under and 65 years and over (mother's age 9 years is recoded as 10 years and ages 55-64 years are recoded to an age from 50-54 years). A review and verification of unedited data for several years showed that the vast majority of births reported as occurring to women aged 50 years and older were to women aged 50-54 years.

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

Mean age of mother: Mean age is the arithmetic average of an age distribution. Trend data on the mean age of mother, derived directly from frequencies of births by age, are available at <https://www.cdc.gov/nchs/products/vsus.htm#natab2003>, [39] and for recent years, in **Table III** of the 2023 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 (602 records; 0.02% for 2023) 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 [31,32,40]).

Age of father

Information on age of father is derived from the father's date of birth and is recommended to be reported directly by the mother. See the [Mother's Worksheet](#) [28]. 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 [31,32] 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 [28]. See also the NCHS manual for detailed descriptions of editing and computation methods [31,32] and **Tables 9, 10, and IV** of the 2023 Final Report [1].

Inferential procedures: Historical information on inferential procedures can be found in the 2014 User Guide [18]. In 2023, inferential procedures were used to compile birth statistics by marital status in full or in part for New York (excluding New York City). In New York, a birth is inferred as nonmarital if either of these factors, listed in priority-of-use order, is present: a paternity acknowledgment was received or the father's name is missing. In recent years, a number of states have extended their efforts to identify the fathers when the parents are not married in order to enforce child support obligations. The presence of a paternity acknowledgment, therefore, is the most reliable indicator that the birth is nonmarital in the states not reporting this information directly. Details of the changes in reporting procedures and the impact of the procedures on the data are described in previous reports [41,42].

Imputation of marital status: Mother's marital status was not reported in 2023 on 0.1% 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; excludes California). For these records with unknown or not-reported marital status, marital status was imputed accordingly: if status was unknown and the father's age was known, then the mother was imputed as married; if the status was unknown, and the father's age unknown, then the mother was imputed as 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 information is included in the 2023 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](#) [28]. See also the NCHS manual for

detailed descriptions of editing and computation methods [31,32], **Table V** of the 2023 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
Bachelor’s degree	Minimum age 20
Master’s degree	Minimum age 21
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 13.1% (**Table B**) in 2023, 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 2023 birth. Fetal deaths are excluded.

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

It is recommended that this information be collected directly from the prenatal care record using the [Facility Worksheet](#) [29]. Detailed instructions and definitions for these items are presented in the [Guide to the Facility Worksheet](#) [30]. See also the NCHS manual for detailed descriptions of editing and computation methods [31,32] and **Table B** for the percent of records for which live birth order is not stated.

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

Birth interval

Birth intervals are computed for all births of second or higher order. The interval is computed from the infant's date of birth (month and year) and the date of the last live birth (month and year). In a plural delivery, the second and higher order birth within a set is classified at an interval of 0-3 months.

It is recommended that this information be collected directly from the prenatal care record using the [Facility Worksheet](#) [29]. Detailed instructions and definitions for these items are presented in the [Guide to the Facility Worksheet](#) [30]. See also the NCHS manual for detailed descriptions of editing and computation methods [31,32] and **Table B** for the percent of records for which birth interval is not stated.

Total-birth order

Total-birth order is determined from three items on the birth certificate, "Number of previous live births now living" and "Number of previous live births now dead," and "Number of previous other pregnancy outcomes." Total-birth order refers to the total number of pregnancies (regardless of outcome) the mother has had including the 2023 birth. Fetal deaths are included.

Live-birth order indicates what number the present birth represents in terms of the number of pregnancies; for example, a baby born to a mother who has had two previous pregnancies (even if one or both ended in fetal losses) has a total-birth order of three.

Like live-birth order, it is recommended that this information be collected directly from the prenatal care record using the [Facility Worksheet](#) [29]. Detailed instructions and definitions for these items are presented in the [Guide to the Facility Worksheet](#) [30]. See also the NCHS manual for detailed descriptions of editing and computation methods [31,32] and **Table B** for the percent of records for which live birth order is not stated.

Pregnancy interval

Pregnancy 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 or other pregnancy outcome (month and year); whichever was more recent. In a plural delivery, the second and higher order birth within a set is classified at an interval of 0-3 months.

It is recommended that this information be collected directly from the prenatal care record using the [Facility Worksheet](#) [29]. Detailed instructions and definitions for these items are presented in the [Guide to the Facility Worksheet](#) [30]. See also the NCHS manual for detailed descriptions of editing and computation methods [31,32] and **Table B** for the percent of records for which birth interval is not stated.

Medical and Public Services Utilization

Prenatal care

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

It is recommended that prenatal care information be collected directly from the prenatal care record using the [Facility Worksheet](#) [29]. Detailed instructions and definitions for these items are presented in the [Guide to the Facility Worksheet](#) [30]. See also the NCHS manual for detailed descriptions of editing and computation methods [31,32], **Table 16** of the 2023 Final Report [1], and **Table B** for the percent of records for which month prenatal care began and number of prenatal care visits is not stated.

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

average, 5% higher than 1st trimester care based on LMP. Accordingly, prenatal care data based on the OE are not comparable with those based on the LMP.

WIC food during pregnancy

It is recommended that information on receipt of WIC (The Special Supplemental Nutrition Program for Women, Infants, and Children) food for the mother during this pregnancy be reported directly by the mother using the [Mother's Worksheet](#) [28]. WIC is a program intended to help low-income pregnant women, infants, and children through age 5 receive proper nutrition by providing vouchers for food, nutrition counseling, health care screenings and referrals; it is administered by the U.S. Department of Agriculture [43]. See also the NCHS manual for detailed descriptions of editing and computation methods [31,32], **Table VII** of the 2023 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 2023 natality public use file. The choice “None of the above” is available if external cephalic version is not applicable. If the item is not completed (i.e. none of the boxes are checked), it is classified as “Not stated.” Cervical cerclage and tocolysis are no longer available in the public use file due to concerns with data quality.

It is recommended that this information on obstetric procedures be collected directly from the medical record using the [Facility Worksheet](#) [29]. Detailed instructions and definitions are presented in the [Guide to the Facility Worksheet](#) [30]. See also the NCHS manual for detailed descriptions of editing and computation methods [31,32], **Table X** of the 2023 Final Report [1], and **Table B** for the percent of records for which obstetric procedures is not stated.

Characteristics of labor and delivery

Six characteristics of labor and delivery are separately identified in a checkbox format: 1) induction of labor; 2) augmentation of labor; 3) steroids; 4) antibiotics received by the mother during labor; 5) clinical chorioamnionitis or maternal temperature $\geq 38^{\circ}\text{C}$; and 6) epidural or spinal anesthesia during labor. The characteristics of labor and delivery item allows for the reporting of more than one characteristic and includes a choice of “None of the above.” If the item is not completed (i.e., none of the boxes are checked), it is classified as “Not stated.” Due to concerns with data quality, non-vertex

presentation, moderate/heavy meconium staining of the amniotic fluid, and fetal intolerance of labor are no longer available in the public use file.

It is recommended that this information be collected directly from the medical record using the [Facility Worksheet](#) [29]. Detailed instructions and definitions for the characteristics are presented in the [Guide to the Facility Worksheet](#) [30]. See also the NCHS manual for detailed descriptions of editing and computation methods [31,32], **Table XI** of the 2023 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 [Facility Worksheet](#) [29]. Detailed instructions and definitions for the characteristics are presented in the [Guide to the Facility Worksheet](#) [30]. See also the NCHS manual for detailed descriptions of editing and computation methods [31,32], **Tables I** and **II** of the 2023 Final Report [1], and **Table B** for the percent of records for which place of birth is not stated.

Planned home births: If the birth was a home birth (box checked) then the following question is asked in a checkbox format: Planned to deliver at home? Yes/ No. Beginning in 2021, information on whether the home birth was planned is reported by all 50 states and the District of Columbia. For years prior to 2021, a reporting flag should be used to generate accurate numbers by residence for planned home births. The reporting flag (the file position is specified in the file layout) will exclude births to residents of non-reporting states. More information on the use of reporting flags can be found in the introduction to the User Guide for the 2014 Natality Public Use File [18].

Time of birth

Time of birth is based on a 24-hour (military) clock. It is recommended that this information be collected directly from the medical record using the [Facility Worksheet](#) [29]. Detailed instructions and definitions for the characteristics are presented in the [Guide to the Facility Worksheet](#) [30]. See also the NCHS manual for detailed descriptions of editing and computation methods [31,32], 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; and 5) other (must be specified). If the item is not completed (i.e., none of the boxes are checked), it is classified as “Not stated”.

It is recommended that this information be collected directly from the medical record using the [Facility Worksheet](#) [29]. Detailed instructions and definitions for the characteristics are presented in the [Guide to the Facility Worksheet](#) [30]. See also the NCHS manual for detailed descriptions of editing and computation methods [31,32], **Tables I** of the 2023 Final Report [1], and **Table B** for the percent of records for which attendant at birth is not stated.

CNM/CM-attended births: There is evidence that the number of live births attended by CNM/CM is understated [44], largely due to difficulty in correctly identifying the birth attendant when more than one provider is present at the birth. (Anecdotal evidence suggests that some hospitals require that a physician be reported as the attendant even when no physician is physically present at midwife-attended births.)

Method of delivery

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

It is recommended that this information be collected directly from the medical record using the [Facility Worksheet](#) [29]. Detailed instructions and definitions for the characteristics are presented in the [Guide to the Facility Worksheet](#) [30]. See also the NCHS manual for detailed descriptions of editing and computation methods [31,32], **Table XII** of the 2023 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 XIII** of the 2023 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, XII and XIII** of the 2023 Final Report [1].

Low-risk cesarean rate: The low-risk cesarean delivery rate is the number of singleton, term (37 or more weeks of gestation based on obstetric estimate), cephalic, cesarean deliveries to women having a first birth per 100 women delivering singleton, term, cephalic, first births. Obstetric estimate and live-birth order are discussed in more detail elsewhere. See **Tables 17, 18 and XII** of the 2023 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 2023 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 2018-2023, 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 [Facility Worksheet](#) [29]. Detailed instructions and definitions for the characteristics are presented in the [Guide to the Facility Worksheet](#) [30]. See also the NCHS manual for detailed descriptions of editing and computation methods [31,32], **Table 19** of the 2023 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 37 states and the District of Columbia, representing 62.6 percent of all U.S. births in 2023. For these states, the “Other” category is

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

Maternal Behavior and Health Characteristics

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

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

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

The currently used categories for BMI were established by the National Health, Lung and Blood Institute (NHBL) in the late 1990s [45]. See the NCHS manual for detailed descriptions of editing and computation methods [31,32], **Table VI** of the 2023 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](#) [28]. See the NCHS manual for detailed descriptions of editing and computation methods [31,32] 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](#) [28]. See the NCHS manual for detailed descriptions of editing and computation methods [31,32] 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 [Facility Worksheet](#) [29]. Detailed instructions and definitions for the characteristics are presented in the [Guide to the Facility Worksheet](#) [30]. See also the NCHS manual for detailed descriptions of editing and computation methods [31,32] 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 [31,32].

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” [32].

It is recommended that information on smoking before and during pregnancy be reported directly by the mother via the [Mother’s Worksheet](#) [28]. See also the NCHS manual for detailed descriptions of editing and computation methods [31,32], **Table 15** of the 2023 Final Report [1], and **Table B** for the percent of records for which cigarette smoking before and during pregnancy is not stated.

Risk factors in this pregnancy

Six risk factors are separately identified in a checkbox format: 1) diabetes (pre-pregnancy or gestational); 2) hypertension (pre-pregnancy or gestational); 3) eclampsia; 4) previous preterm births; 5) pregnancy resulted from infertility treatment; and 6) mother had a previous cesarean delivery. This item allows for the reporting of more than one risk factor and includes a choice of “None of the above”. If the item is not completed (i.e., none of the boxes are checked), it is classified as “Not stated”. The checkbox “Other previous poor pregnancy outcome” is no longer available in the public use files because of concerns with data quality.

It is recommended that this information be collected directly from the medical record using the [Facility Worksheet](#) [29]. Detailed instructions and definitions for the characteristics are presented in the [Guide to the Facility Worksheet](#) [30]. See also the NCHS manual for detailed descriptions of editing and computation methods [31,32], **Table VIII** of the 2023 Final Report [1], and **Table B** for the percent of records for which risk factors is not stated.

Eclampsia: Beginning in 2022, information on eclampsia is available for all 50 states and the District of Columbia. For years prior to 2022, 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), zygote intrafallopian transfer (ZIFT)).

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.

Beginning in 2022, information on type of infertility is available for all 50 states and the District of Columbia. For years prior to 2022, a reporting flag should be used to generate accurate numbers by residence for type of infertility treatment used. The reporting flag (the file position is specified in the file layout) will exclude births to residents of non-reporting states. More information on the use of reporting flags can be found in the introduction to the User Guide for the 2014 Natality Public Use File [18].

Infections present and/or treated during this pregnancy

Five infections are separately identified in a checkbox format: 1) gonorrhea; 2) syphilis; 3) chlamydia; 4) hepatitis B; and 5) hepatitis C. This is a checkbox item allowing for the reporting of more than one infection and includes a choice of “None of the above”. If the item is not completed (i.e., none of the boxes are checked), it is classified as “Not stated”.

It is recommended that this information be collected directly from the medical record using the [Facility Worksheet](#) [29]. Detailed instructions and definitions for the characteristics are presented in the [Guide to the Facility Worksheet](#) [30]. See also the NCHS manual for detailed descriptions of editing and computation methods [31,32], **Table IX** of the 2023 Final Report [1], and **Table B** for the percent of records for which infections present and/or treated during this pregnancy is not stated.

Maternal morbidity

Five maternal morbidities are separately identified in a checkbox format: 1) maternal transfusion; 2) third or fourth degree perineal laceration; 3) ruptured uterus; 4) unplanned hysterectomy; and 5) admission to intensive care unit. This item allows for the reporting of more than one morbidity and includes a choice of “None of the above”. If the item is not completed (i.e., none of the boxes are checked), it is classified as “Not stated”. The checkbox item “unplanned operating room procedure following delivery” is no longer included in the public use file because of concerns with data quality.

It is recommended that this information be collected directly from the medical record using the [Facility Worksheet](#) [29]. Detailed instructions and definitions for the characteristics are presented in the [Guide to the Facility Worksheet](#) [30]. See also the NCHS manual for detailed descriptions of editing and computation methods [31,32], **Table XIV** of the 2023 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) replaced the measure based on the date of the last normal menses (LMP) [46]. Accordingly, gestational age data in standard reports are based on the OE. However, LMP-based data are also available. National data based on the OE are available only from data year 2007 forward. Gestational age estimates differ somewhat between the OE- and LMP-based measures. For example, the 2023 OE-based preterm birth rate is 10.41% compared with the LMP-based rate of 12.24%. 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 [46].

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

It is recommended that this information be collected directly from the medical record using the [Facility Worksheet](#) [29]. Detailed instructions and definitions for the characteristics are presented in the [Guide to the Facility Worksheet](#) [30]. See also the NCHS manual for detailed descriptions of editing and computation methods [31,32], **Tables 20, 21, XV**, and **XVI** of the 2023 Final Report [1], and **Table B** for the percent of records for which period of gestation is not stated.

Birthweight

Birthweight is reported in some areas in pounds and ounces and in other areas as grams. However, the metric system is used to tabulate and present the statistics to facilitate comparison with data published by other groups. The categories for birthweight are consistent with the recommendations in the International Statistical Classification of Diseases, Ninth Revision (ICD–9) and the International Statistical Classification of Diseases, Tenth Revision (ICD–10) [14,48]. The categories in gram intervals and their equivalents in pounds and ounces are as follows:

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

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

To establish the continuity of class intervals needed to convert pounds and ounces to grams, the end points of these intervals are assumed to be half an ounce less at the lower end and half an ounce more at the upper end. For example, 2 lb 4 oz–3 lb 4 oz is interpreted as 2 lb 3 ½ oz–3 lb 4 ½ oz.

It is recommended that this information be collected directly from the medical record using the [Facility Worksheet](#) [29]. Detailed instructions and definitions for the characteristics are presented in the [Guide to the Facility Worksheet](#) [30]. See also the NCHS manual for detailed descriptions of editing and computation methods [31,32], **Tables 22, 23, XVII**, and **XVIII** of the 2023 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 (47,093) of births in 2023; an additional 5.6 percent (2,627) 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](#) [29]. Detailed instructions and definitions for the characteristics are presented in the [Guide to the Facility Worksheet](#) [30]. See also the NCHS manual for detailed descriptions of editing and computation methods [31,32] and **Table B** for the percent of records for which 5-minute and 10-minute Apgar score is not stated.

Abnormal conditions of the newborn

Six abnormal conditions of the newborn are separately identified in a checkbox format: 1) assisted ventilation required immediately following delivery; 2) assisted ventilation required for more than six hours; 3) NICU admission; 4) newborn given surfactant replacement therapy; 5) antibiotics received by the newborn for suspected neonatal sepsis; and 6) seizure or serious neurological dysfunction. This item allows for the reporting of more than one condition and includes a choice of “None of the above”. If the item is not completed (i.e., none of the boxes are checked), it is classified as “Not stated”. The checkbox item significant birth injury is no longer included in the public use file because of concerns with data quality.

It is recommended that this information be collected directly from the medical record using the [Facility Worksheet](#) [29]. Detailed instructions and definitions for the characteristics are presented in the [Guide to the Facility Worksheet](#) [30]. See also the NCHS manual for detailed descriptions of editing and computation methods [31,32], **Table XX** of the 2023 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](#) [29]. Detailed instructions and definitions for the characteristics are presented in the [Guide to the Facility Worksheet](#) [30]. See also the NCHS manual for detailed descriptions of editing and computation methods [31,32], **Table XXI** of the 2023 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; note that a twin delivery may include 2 live births or 1 live birth and 1 fetal death. Pairs or sets of twins or higher order multiple births are not identified in this file but are available in the Matched Multiple Birth and Fetal Death Data Sets at https://www.cdc.gov/nchs/data_access/vitalstatsonline.htm. Records for which plurality is unknown are imputed as singletons. This occurred for 0.006% (218) of all records for 2023.

It is recommended that this information be collected directly from the medical record using the [Facility Worksheet](#) [29]. Detailed instructions and definitions for the characteristics are presented in the [Guide to the Facility Worksheet](#) [30]. See also NCHS manuals for detailed descriptions of editing and computation methods [31,32], **Tables 24, 25, and XIX** in the 2023 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 88.9% of all U.S. births in 2023. The item asks the question: Is the infant being breastfed at discharge? Yes/No. The intent to breastfeed, without having initiated it by the time of hospital discharge, is not considered a “Yes” response.

It is recommended that this information be collected directly from the medical record using the [Facility Worksheet](#) [29]. Detailed instructions and definitions for the characteristics are presented in the [Guide to the Facility Worksheet](#) [30]. See also NCHS manuals for detailed descriptions of editing and computation methods [31,32], **Table VII** in the 2023 Final Report [1], and **Table B** for the percent of records for which infant breastfed at discharge is not stated.

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

Definitions of medical terms

For definitions and discussion of the maternal and infant health characteristics, see the [Guide to the Facility Worksheet](#) [30].

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 2023 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 [49] compared with 0.08 percent for comparable birth certificate data in 2014. Although there are other reasons for the differences in the rates, such as the differing time periods under study, these findings suggest that the birth certificate data likely underreport these morbidities.

It is well documented that congenital anomalies, except for the most visible and most severe, have historically been under-reported on birth certificates [50]. This has been attributable, at least in part, to the inclusion of anomalies on the 1989 U.S. Standard Certificate of Live Birth, which may be difficult to detect within the short period between birth and completion of the child’s birth certificate. The 2003 revision of the U.S. Standard Certificate attempted to improve reporting of congenital anomalies by including only those diagnosable within 24 hours of birth using conventional, widely available diagnostic techniques [51]. However, it is not clear whether these efforts were successful because the instances of the anomalies were too few to be included in the quality study above and there have yet to be other quality studies assessing these data.

State-specific data quality issues for 2023

The state-specific data quality issues noted below are of particular concern due to documented evidence of underreporting and/or inaccurate reporting for 2023. *These data should be used with caution.*

Father’s information: Changes in delivery room/hospital policy in response to the COVID-19 pandemic (2020-2023), 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

District of Columbia:

- *Characteristics of Labor & Delivery* – Augmentation of labor

Indiana:

- *Attendant at delivery*

Louisiana:

- *Abnormal Conditions of the Newborn* – Antibiotics, Assisted ventilation for 6 or more hours

Michigan:

- *Infant Breastfed*

Mississippi:

- *Abnormal Conditions of the Newborn* – Antibiotics, Assisted ventilation for 6 or more hours

Nevada:

- *Abnormal Conditions of the Newborn* – Assisted ventilation for 6 or more hours, Surfactant
- *Maternal Morbidity* – Maternal transfusion

New Mexico:

- *Abnormal Conditions of the Newborn* – Antibiotics, Assisted ventilation for 6 or more hours, Surfactant
- *Infections Present and/or Treated During Pregnancy* – Syphilis
- *Maternal Morbidity* – Maternal transfusion

Puerto Rico:

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

Tennessee:

- *Abnormal Conditions of the Newborn* – Antibiotics

Virgin Islands:

- *Paternity acknowledgement:* (Unknowns exceed 25% of records)

Virginia:

- *Prenatal care items* – Number prenatal care visits
- *Obstetric procedures* – Successful, Failed external cephalic version
- *Congenital Anomalies of the Newborn* – Meningomyelocele/Spina Bifida

Computation of Rates and Other Measures

Population denominators

2023 population estimates: Birth and fertility rates for 2023 shown in the 2023 Final Report [1] are estimated as of July 1, 2023 based on the Blended Base population estimates produced by the US Census Bureau in lieu of the April 1, 2020 decennial population count. The Blended Base consists of the blend of 2020 Census Data, 2020 Demographic Analysis estimates, and Vintage 2020 estimates (see <https://www2.census.gov/programs-surveys/popest/technical-documentation/methodology/2020-2023/2023-est-relnotes.pdf> and <https://www2.census.gov/programs-surveys/popest/technical-documentation/methodology/2020-2023/methods-statement-v2023.pdf>). These populations are shown in

Table 1. The population estimates have been provided by the U.S. Census Bureau [52] and are presented by age, race (consistent with the revised 1997 OMB standards), and sex [35].

Birth and fertility rates by state shown in the 2023 Final Report [1] are based on state-level population estimates provided by the U.S. Census Bureau [52]. Birth and fertility rates for the territories except Puerto Rico are based on population estimates available from the U.S. Census Bureau's International Data Base [53]. Rates for Puerto Rico are based on population estimates available from the U.S. Census Bureau [54].

The population-based rates 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 Blended Base Population estimates. Rates for unmarried women are based on distributions of the population by marital status averaged over a 2-year period for 2022–2023 as reported by the U.S. Census Bureau in the March Current Population Survey (CPS) for each year [55,56], which have been adjusted to July 1, 2023 (Blended Base) population levels [52] by NCHS' Division of Vital Statistics [42].

As of the preparation of this report, data from the March CPS for 2024 were not available. Accordingly, the distributions of the population by marital status were based on a 2-year average of 2022 and 2023. 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) [57] and adjusted to the U.S. resident population control totals by the U.S. Census Bureau. For detailed information on the population estimates for the specific Hispanic groups, see the User Guide for the 2016 Natality Public Use File [58].

The 2023 population estimates for the specific Hispanic population groups were not available as of the preparation of the 2023 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 2023 1-year ACS and adjusted according to the (Blended Base) postcensal estimates for July 1, 2023.

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 2010–2023 are shown in **Table 3** [59]. A detailed discussion of historical population bases is presented elsewhere [60].

Small populations as denominators: Starting with 2023 data an asterisk (*) is shown in place of any rate according to the new reporting criteria adopted by NCHS: the rate is based on fewer than 10 births in the numerator or the relative width of the confidence interval of the rate is greater than 160%, whether based on a gamma distribution for a rate based on a decennial census or postcensal and/or intercensal population estimates, or based on a Student's t interval for the logarithm of the rate for a rate based on population estimates from either the Current Population Survey (CPS) or the American Community Survey (ACS), such as the rates for the Hispanic subgroups [61]. 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” [60]. Adjusted rates for 2023 can be computed by multiplying the reported rates by ratios from the 2023 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 [62-65]. 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 [66].

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 1,621.0 in 2023, 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 2023, they would have a total of 1,621.0 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 [67]. 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 the number of events, a rate, or proportion – meets these standards.

New criteria for showing the number of events and rates were adopted by NCHS beginning with the 2023 data [61]. Rates published for data years prior to 2023, based on a population denominator from a decennial census or postcensal and/or intercensal population estimate, were represented by an asterisk when the numerator was fewer than 20 births; the number of births was shown regardless of the count. Beginning with 2023 data, whether the number of births or a rate is shown depends on the count of births (by itself or as the numerator of the rate) and on the relative width of the confidence interval of the count, based on a gamma distribution. For rates based on population estimates from the Current Population Survey (CPS) or the American Community Survey (ACS), whether a rate is shown depends

on the count for the numerator and on the relative width of the confidence interval of the numerator of the rate based on a Student's t interval for the logarithm of the rate (with the variance estimated using a method supplied with the CPS data). For detailed information on the new criteria see "National Center for Health Statistics Data Presentation Standards for Proportions" [61].

For a proportion (or percentage), new criteria was adopted by NCHS beginning with the 2017 data [68]. For proportion or percentages published prior to the 2017 data year, an asterisk was shown in place of a proportion or percentage based on fewer than 20 births in the numerator. For 2017 and later, whether a proportion (percentage) is shown is 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 these criteria, see "National Center for Health Statistics Data Presentation Standards for Proportions" [68]. Starting in 2023, an additional criterion was added; proportion or percentage were represented with an asterisk when the numerator was fewer than 10 births.

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 [69].

Specified Hispanic population groups

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

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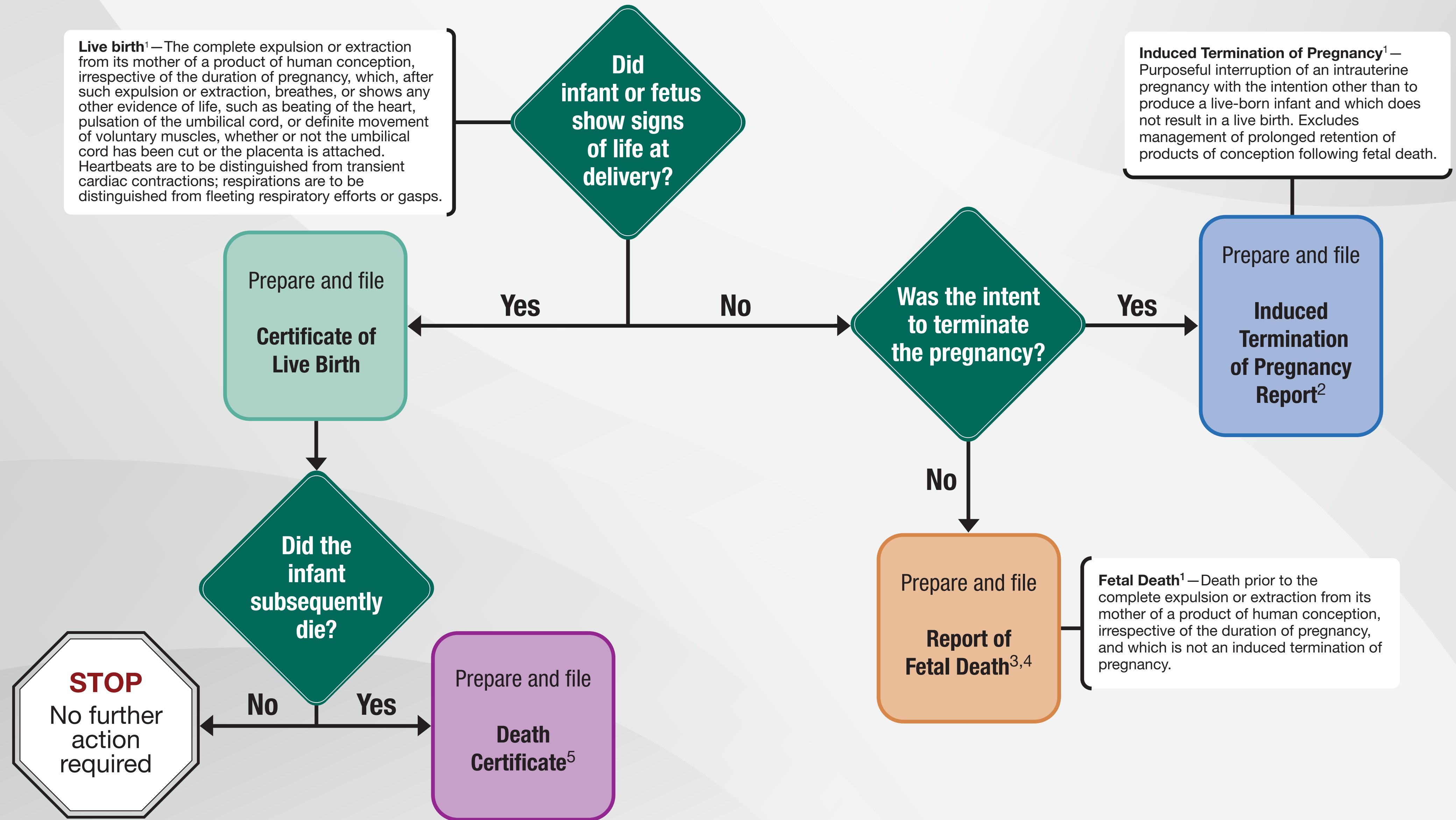
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Guidelines for Reporting Live Births, Infant Deaths, Fetal Deaths, and Induced Terminations of Pregnancy



¹See: National Center for Health Statistics. Model State Vital Statistics Act and Regulations, 1992 revision. 1994. Available from: <https://www.cdc.gov/nchs/data/misc/mvsact92b.pdf>.

²Refer to jurisdictional reporting requirements.

³If birthweight ≥ 350 grams or gestational age 20+ weeks (see “Model State Vital Statistics Act and Regulations, 1992 revision”); however, reporting requirements vary by jurisdiction as to the birthweight or gestational age at which a Report of Fetal Death is required. Refer to jurisdiction-specific requirements.

⁴See disposal of remains requirements for your state.

⁵Whether the hospital or the funeral home prepares and files the death certificate is determined by which disposes of remains.

U.S. STANDARD CERTIFICATE OF LIVE BIRTH

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

INFORMATION FOR ADMINISTRATIVE USE

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

INFORMATION FOR MEDICAL AND HEALTH PURPOSES ONLY

M O T H E R	20. MOTHER'S EDUCATION (Check the box that best describes the highest degree or level of school completed at the time of delivery)	21. MOTHER OF HISPANIC ORIGIN? (Check the box that best describes whether the mother is Spanish/Hispanic/Latina. Check the "No" box if mother is not Spanish/Hispanic/Latina)	22. MOTHER'S RACE (Check one or more races to indicate what the mother considers herself to be)
	<input type="checkbox"/> 8th grade or less <input type="checkbox"/> 9th - 12th grade, no diploma <input type="checkbox"/> High school graduate or GED completed <input type="checkbox"/> Some college credit but no degree <input type="checkbox"/> Associate degree (e.g., AA, AS) <input type="checkbox"/> Bachelor's degree (e.g., BA, AB, BS) <input type="checkbox"/> Master's degree (e.g., MA, MS, MEng, MEd, MSW, MBA) <input type="checkbox"/> Doctorate (e.g., PhD, EdD) or Professional degree (e.g., MD, DDS, DVM, LLB, JD)	<input type="checkbox"/> No, not Spanish/Hispanic/Latina <input type="checkbox"/> Yes, Mexican, Mexican American, Chicana <input type="checkbox"/> Yes, Puerto Rican <input type="checkbox"/> Yes, Cuban <input type="checkbox"/> Yes, other Spanish/Hispanic/Latina (Specify) _____	<input type="checkbox"/> White <input type="checkbox"/> Black or African American <input type="checkbox"/> American Indian or Alaska Native (Name of the enrolled or principal tribe) _____ <input type="checkbox"/> Asian Indian <input type="checkbox"/> Chinese <input type="checkbox"/> Filipino <input type="checkbox"/> Japanese <input type="checkbox"/> Korean <input type="checkbox"/> Vietnamese <input type="checkbox"/> Other Asian (Specify) _____ <input type="checkbox"/> Native Hawaiian <input type="checkbox"/> Guamanian or Chamorro <input type="checkbox"/> Samoan <input type="checkbox"/> Other Pacific Islander (Specify) _____ <input type="checkbox"/> Other (Specify) _____
F A T H E R	23. FATHER'S EDUCATION (Check the box that best describes the highest degree or level of school completed at the time of delivery)	24. FATHER OF HISPANIC ORIGIN? (Check the box that best describes whether the father is Spanish/Hispanic/Latino. Check the "No" box if father is not Spanish/Hispanic/Latino)	25. FATHER'S RACE (Check one or more races to indicate what the father considers himself to be)
	<input type="checkbox"/> 8th grade or less <input type="checkbox"/> 9th - 12th grade, no diploma <input type="checkbox"/> High school graduate or GED completed <input type="checkbox"/> Some college credit but no degree <input type="checkbox"/> Associate degree (e.g., AA, AS) <input type="checkbox"/> Bachelor's degree (e.g., BA, AB, BS) <input type="checkbox"/> Master's degree (e.g., MA, MS, MEng, MEd, MSW, MBA) <input type="checkbox"/> Doctorate (e.g., PhD, EdD) or Professional degree (e.g., MD, DDS, DVM, LLB, JD)	<input type="checkbox"/> No, not Spanish/Hispanic/Latino <input type="checkbox"/> Yes, Mexican, Mexican American, Chicano <input type="checkbox"/> Yes, Puerto Rican <input type="checkbox"/> Yes, Cuban <input type="checkbox"/> Yes, other Spanish/Hispanic/Latino (Specify) _____	<input type="checkbox"/> White <input type="checkbox"/> Black or African American <input type="checkbox"/> American Indian or Alaska Native (Name of the enrolled or principal tribe) _____ <input type="checkbox"/> Asian Indian <input type="checkbox"/> Chinese <input type="checkbox"/> Filipino <input type="checkbox"/> Japanese <input type="checkbox"/> Korean <input type="checkbox"/> Vietnamese <input type="checkbox"/> Other Asian (Specify) _____ <input type="checkbox"/> Native Hawaiian <input type="checkbox"/> Guamanian or Chamorro <input type="checkbox"/> Samoan <input type="checkbox"/> Other Pacific Islander (Specify) _____ <input type="checkbox"/> Other (Specify) _____

Mother's Name

Mother's Medical Record No.

26. PLACE WHERE BIRTH OCCURRED (Check one)	27. ATTENDANT'S NAME, TITLE, AND NPI	28. MOTHER TRANSFERRED FOR MATERNAL MEDICAL OR FETAL INDICATIONS FOR DELIVERY? <input type="checkbox"/> Yes <input type="checkbox"/> No IF YES, ENTER NAME OF FACILITY MOTHER TRANSFERRED FROM: _____
<input type="checkbox"/> Hospital <input type="checkbox"/> Freestanding birthing center <input type="checkbox"/> Home Birth: Planned to deliver at home? 9 Yes 9 No <input type="checkbox"/> Clinic/Doctor's office <input type="checkbox"/> Other (Specify) _____	NAME: _____ NPI: _____ TITLE: <input type="checkbox"/> MD <input type="checkbox"/> DO <input type="checkbox"/> CNM/CM <input type="checkbox"/> OTHER MIDWIFE <input type="checkbox"/> OTHER (Specify) _____	

MOTHER	29a. DATE OF FIRST PRENATAL CARE VISIT MM / DD / YYYY <input type="checkbox"/> No Prenatal Care		29b. DATE OF LAST PRENATAL CARE VISIT MM / DD / YYYY		30. TOTAL NUMBER OF PRENATAL VISITS FOR THIS PREGNANCY _____ (If none, enter "0".)				
	31. MOTHER'S HEIGHT _____ (feet/inches)		32. MOTHER'S PREPREGNANCY WEIGHT _____ (pounds)		33. MOTHER'S WEIGHT AT DELIVERY _____ (pounds)				
	35. NUMBER OF PREVIOUS LIVE BIRTHS (Do not include this child)		36. NUMBER OF OTHER PREGNANCY OUTCOMES (spontaneous or induced losses or ectopic pregnancies)		37. CIGARETTE SMOKING BEFORE AND DURING PREGNANCY For each time period, enter either the number of cigarettes or the number of packs of cigarettes smoked. IF NONE, ENTER "0".				
	35a. Now Living Number _____ <input type="checkbox"/> None		35b. Now Dead Number _____ <input type="checkbox"/> None		36a. Other Outcomes Number _____ <input type="checkbox"/> None				
35c. DATE OF LAST LIVE BIRTH MM / YYYY		36b. DATE OF LAST OTHER PREGNANCY OUTCOME MM / YYYY		39. DATE LAST NORMAL MENSES BEGAN MM / DD / YYYY		34. DID MOTHER GET WIC FOOD FOR HERSELF DURING THIS PREGNANCY? <input type="checkbox"/> Yes <input type="checkbox"/> No			
38. PRINCIPAL SOURCE OF PAYMENT FOR THIS DELIVERY <input type="checkbox"/> Private Insurance <input type="checkbox"/> Medicaid <input type="checkbox"/> Self-pay <input type="checkbox"/> Other (Specify) _____		38. PRINCIPAL SOURCE OF PAYMENT FOR THIS DELIVERY <input type="checkbox"/> Private Insurance <input type="checkbox"/> Medicaid <input type="checkbox"/> Self-pay <input type="checkbox"/> Other (Specify) _____		38. PRINCIPAL SOURCE OF PAYMENT FOR THIS DELIVERY <input type="checkbox"/> Private Insurance <input type="checkbox"/> Medicaid <input type="checkbox"/> Self-pay <input type="checkbox"/> Other (Specify) _____		38. PRINCIPAL SOURCE OF PAYMENT FOR THIS DELIVERY <input type="checkbox"/> Private Insurance <input type="checkbox"/> Medicaid <input type="checkbox"/> Self-pay <input type="checkbox"/> Other (Specify) _____			
35c. DATE OF LAST LIVE BIRTH MM / YYYY		36b. DATE OF LAST OTHER PREGNANCY OUTCOME MM / YYYY		39. DATE LAST NORMAL MENSES BEGAN MM / DD / YYYY		40. MOTHER'S MEDICAL RECORD NUMBER			
MEDICAL AND HEALTH INFORMATION				41. RISK FACTORS IN THIS PREGNANCY (Check all that apply)		43. OBSTETRIC PROCEDURES (Check all that apply)			
				42. INFECTIONS PRESENT AND/OR TREATED DURING THIS PREGNANCY (Check all that apply)		44. ONSET OF LABOR (Check all that apply)		46. METHOD OF DELIVERY	
				45. CHARACTERISTICS OF LABOR AND DELIVERY (Check all that apply)		47. MATERNAL MORBIDITY (Check all that apply) (Complications associated with labor and delivery)		47. MATERNAL MORBIDITY (Check all that apply) (Complications associated with labor and delivery)	
				45. CHARACTERISTICS OF LABOR AND DELIVERY (Check all that apply)		47. MATERNAL MORBIDITY (Check all that apply) (Complications associated with labor and delivery)		47. MATERNAL MORBIDITY (Check all that apply) (Complications associated with labor and delivery)	

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

Mother's Name

Mother's Medical Record No.

Table A. Births by place of occurrence and residence for births occurring in the 50 states, the District of Columbia, and U.S. territories, 2023

Area	Number live births	
	Occurrence ¹	Residence ^{1,2}
United States	3,605,081	3,596,017
Alabama	56,448	57,858
Alaska	8,937	9,015
Arizona	79,087	78,096
Arkansas	34,369	35,264
California	401,187	400,108
Colorado	62,141	61,494
Connecticut	35,543	34,559
Delaware	10,777	10,427
District of Columbia	11,268	7,896
Florida	221,739	221,410
Georgia	126,005	125,120
Hawaii	14,837	14,808
Idaho	22,075	22,397
Illinois	121,143	124,820
Indiana	79,149	79,000
Iowa	36,505	36,052
Kansas	35,847	34,065
Kentucky	50,396	51,984
Louisiana	55,243	54,927
Maine	11,204	11,627
Maryland	62,217	65,594
Massachusetts	67,916	67,093
Michigan	98,200	99,124
Minnesota	60,886	61,715
Mississippi	33,311	34,459
Missouri	67,445	67,123
Montana	11,167	11,078
Nebraska	24,187	24,111
Nevada	31,462	31,794
New Hampshire	12,091	11,936
New Jersey	97,959	101,001
New Mexico	18,824	20,951
New York	204,765	203,612
North Carolina	122,439	120,082
North Dakota	11,063	9,647
Ohio	127,360	126,896
Oklahoma	46,060	47,909
Oregon	38,857	38,298
Pennsylvania	126,065	126,951
Rhode Island	10,282	9,805

South Carolina	53,686	57,729
South Dakota	12,087	11,201
Tennessee	88,387	83,021
Texas	397,174	387,945
Utah	46,338	45,019
Vermont	4,827	5,065
Virginia	93,024	92,649
Washington	80,716	80,932
West Virginia	17,545	16,606
Wisconsin	59,504	59,754
Wyoming	5,337	5,990

Births occurring to US territorial residents

Puerto Rico	18,645	18,601
Virgin Islands	834	823
Guam	2,381	2,353
American Samoa	---	---
Northern Marianas	581	579

--- Data not available.

¹ Excludes data for the territories.

² Excludes data for foreign residents.

Table B. Percent of birth records on which specified items were not stated: United States and each state and territory, New York City, and the District of Columbia, 2023

[By place of residence]

Reporting area	All births	Time of birth	Mother's birthplace	Education of mother	Education of father
Total of reporting areas ¹	3,667,758	0.0	0.2	1.7	13.3
Alabama	58,149	-	0.0	0.2	16.1
Alaska	9,359	-	0.1	1.6	14.3
Arizona	78,547	0.0	0.1	0.5	12.0
Arkansas	35,471	0.0	0.4	1.3	23.3
California	419,104	0.0	0.2	8.1	14.5
Colorado	62,383	0.0	0.2	1.1	7.0
Connecticut	35,332	0.0	0.1	0.2	8.6
Delaware	10,816	-	1.0	2.0	33.9
District of Columbia	8,075	0.1	0.8	1.6	21.2
Florida	224,433	0.0	0.3	0.8	12.1
Georgia	126,130	0.0	0.0	0.4	16.2
Hawaii	15,535	-	0.2	1.4	8.5
Idaho	22,391	0.0	0.3	1.0	11.1
Illinois	128,350	0.0	0.1	1.2	12.0
Indiana	79,649	0.0	0.3	0.3	11.3
Iowa	36,506	-	0.0	0.2	13.7
Kansas	34,401	0.0	0.2	0.8	9.5
Kentucky	52,315	0.0	0.2	0.6	19.8
Louisiana	56,479	0.0	0.0	0.5	15.0
Maine	12,093	0.0	0.0	0.4	9.4
Maryland	68,782	0.0	0.3	0.6	12.4
Massachusetts	68,584	-	0.1	2.6	8.5
Michigan	102,321	0.0	0.2	0.7	11.1
Minnesota	64,015	0.0	0.1	0.6	12.2
Mississippi	34,675	0.0	0.1	0.2	16.1
Missouri	68,985	0.0	1.5	0.3	17.4
Montana	11,175	-	0.0	0.2	8.4
Nebraska	24,345	-	0.1	0.2	11.1
Nevada	33,193	0.0	0.1	2.6	12.7
New Hampshire	12,077	-	0.0	0.6	6.1
New Jersey	102,893	0.0	0.1	1.4	7.7
New Mexico	21,614	0.0	0.1	0.2	17.8
New York (excluding NYC)	114,729	-	0.0	0.9	9.6
New York City	93,045	-	0.1	0.8	10.2
North Carolina	121,562	0.0	0.5	0.3	14.7
North Dakota	9,567	-	1.2	1.6	13.1
Ohio	128,231	0.0	0.2	0.4	16.7
Oklahoma	48,332	0.0	0.1	0.3	13.4
Oregon	39,493	0.0	0.1	1.0	9.9
Pennsylvania	130,252	0.0	0.9	0.7	13.3
Rhode Island	10,269	0.0	0.4	0.9	9.4
South Carolina	57,820	0.0	0.1	0.5	17.5
South Dakota	11,201	-	0.0	0.5	12.6
Tennessee	82,265	0.0	0.1	0.4	13.1
Texas	389,741	0.0	0.1	0.7	11.9
Utah	45,768	0.0	0.2	2.1	8.4
Vermont	5,316	0.0	0.1	0.7	25.5
Virginia	95,630	0.0	0.2	1.7	10.7
Washington	83,333	0.0	0.7	3.4	14.2
West Virginia	16,929	0.0	0.3	0.3	13.7
Wisconsin	60,049	0.0	0.1	0.8	36.6
Wyoming	6,049	-	0.1	1.5	14.3
Puerto Rico	19,112	-	-	0.1	5.2
Virgin Islands	868	0.8	2.2	6.3	42.3
Guam	2,518	0.1	3.1	4.8	35.1
American Samoa ²	---	-	-	-	-
Northern Marianas	467	-	-	0.2	6.9

See footnotes at end of table.

Table B. Percent of birth records on which specified items were not stated: United States and each state and territory, New York City, and the District of Columbia, 2023--Con.

[By place of residence]

Reporting area	Father's age	Father's race	Hispanic Origin		Place of birth
			Mother	Father	
Total of reporting areas ¹	10.8	18.6	1.0	12.3	0.0
Alabama	15.9	19.7	0.0	15.9	0.0
Alaska	10.4	14.9	1.4	15.9	0.0
Arizona	11.6	14.1	0.6	12.3	0.0
Arkansas	21.1	27.7	0.5	21.1	-
California	6.5	17.6	3.7	9.9	0.0
Colorado	5.6	11.7	1.0	6.3	0.0
Connecticut	8.6	14.4	0.1	8.6	-
Delaware	23.1	33.8	0.5	23.7	-
District of Columbia	19.6	29.1	0.3	20.3	0.0
Florida	10.1	22.1	0.1	10.3	0.0
Georgia	13.2	18.9	0.5	13.6	0.0
Hawaii	7.8	8.2	0.3	7.9	0.0
Idaho	7.4	15.8	0.7	10.6	-
Illinois	9.6	13.4	0.6	10.5	0.0
Indiana	11.1	13.7	0.1	11.3	0.0
Iowa	12.0	16.4	0.0	12.4	-
Kansas	8.6	11.7	0.3	9.0	0.0
Kentucky	17.9	22.3	0.3	18.7	0.0
Louisiana	14.1	21.5	0.1	14.3	-
Maine	9.0	10.7	0.0	14.4	-
Maryland	10.2	23.1	0.2	11.8	0.0
Massachusetts	6.5	10.9	1.7	4.3	0.0
Michigan	10.4	13.6	0.7	10.7	-
Minnesota	9.2	15.1	0.3	9.4	-
Mississippi	15.7	20.2	0.0	15.8	0.0
Missouri	16.6	19.8	0.6	20.5	0.0
Montana	8.0	9.3	0.2	8.1	-
Nebraska	9.9	21.1	0.0	10.8	0.0
Nevada	9.6	12.7	0.5	10.2	0.0
New Hampshire	4.4	9.1	0.6	5.4	-
New Jersey	5.8	20.7	0.8	8.4	-
New Mexico	17.6	18.5	0.2	17.9	0.0
New York (excluding NYC)	7.8	16.5	0.5	8.7	0.0
New York City	9.0	22.5	0.8	10.1	-
North Carolina	14.1	24.4	0.1	14.2	-
North Dakota	10.4	13.6	2.3	13.5	0.0
Ohio	15.9	19.3	0.2	16.4	-
Oklahoma	12.2	19.8	0.1	13.2	-
Oregon	8.5	27.7	5.3	6.2	-
Pennsylvania	10.6	20.3	1.2	13.4	-
Rhode Island	8.0	23.6	0.6	9.0	0.0
South Carolina	15.7	21.8	0.2	17.2	-
South Dakota	10.4	13.2	0.1	10.8	0.0
Tennessee	12.1	20.1	0.2	12.4	-
Texas	10.9	16.9	0.4	13.1	0.0
Utah	5.9	12.6	1.1	7.1	-
Vermont	6.1	25.7	0.5	25.2	-
Virginia	8.6	17.5	0.4	9.1	0.0
Washington	8.4	21.8	3.7	14.5	0.0
West Virginia	1.1	14.7	0.4	13.6	0.0
Wisconsin	33.6	37.0	0.6	36.6	-
Wyoming	9.1	17.6	2.6	14.5	0.0
Puerto Rico	4.8	7.7	0.1	5.2	-
Virgin Islands	18.9	30.9	9.6	46.0	0.3
Guam	34.2	36.5	1.2	23.8	0.8
American Samoa ²	-	-	-	-	-
Northern Marianas	5.8	6.4	-	5.8	-

See footnotes at end of table.

Table B. Percent of birth records on which specified items were not stated: United States and each state and territory, New York City, and the District of Columbia, 2023--Con.
 [By place of residence]

Reporting area	Attendant at birth	Month prenatal care began	Number of prenatal care visits	Mother's height	Mother's pre-pregnancy weight
Total of reporting areas ¹	0.1	2.2	2.1	0.5	1.8
Alabama	-	0.3	0.4	0.1	0.8
Alaska	-	1.2	1.8	0.4	2.4
Arizona	0.0	2.3	1.5	0.3	1.2
Arkansas	0.0	1.0	1.0	0.4	3.2
California	0.1	1.9	2.4	0.4	2.6
Colorado	0.1	2.1	2.0	1.1	4.7
Connecticut	0.0	0.9	0.8	0.1	0.2
Delaware	0.0	1.8	1.6	0.8	1.0
District of Columbia	0.0	6.3	6.3	1.7	2.2
Florida	0.0	2.6	2.1	0.5	2.5
Georgia	0.0	0.7	0.8	0.1	0.5
Hawaii	0.3	5.9	6.5	0.5	5.8
Idaho	0.1	0.7	0.8	0.3	1.5
Illinois	0.0	1.6	1.6	0.2	2.0
Indiana	0.0	0.2	0.3	0.4	1.6
Iowa	-	0.3	0.3	0.1	0.3
Kansas	-	0.9	0.7	0.2	0.9
Kentucky	-	1.8	1.7	0.1	0.3
Louisiana	0.2	2.3	4.1	0.3	1.8
Maine	0.1	0.9	1.2	0.3	3.1
Maryland	0.1	4.9	5.0	1.0	1.9
Massachusetts	0.0	1.1	0.9	0.4	2.0
Michigan	0.0	1.3	0.6	0.3	1.2
Minnesota	0.2	0.8	0.9	0.3	1.1
Mississippi	0.0	1.2	0.7	0.0	0.4
Missouri	-	2.0	2.8	1.2	2.2
Montana	-	0.2	0.1	0.2	0.3
Nebraska	-	1.9	2.0	0.4	0.9
Nevada	0.0	2.0	2.3	1.1	2.1
New Hampshire	0.0	1.7	0.3	0.8	1.9
New Jersey	0.0	0.9	0.1	0.3	2.2
New Mexico	0.0	3.7	4.2	0.2	1.4
New York (excluding NYC)	0.1	2.6	3.8	1.7	3.9
New York City	0.0	2.7	2.5	0.1	0.8
North Carolina	0.6	0.6	0.7	0.2	1.5
North Dakota	0.5	1.8	2.5	0.3	3.1
Ohio	0.0	0.8	0.9	0.2	1.1
Oklahoma	0.0	1.2	1.2	0.1	0.6
Oregon	0.0	1.1	1.3	0.3	1.6
Pennsylvania	0.0	2.6	2.7	0.8	2.0
Rhode Island	0.0	0.8	3.9	0.5	1.7
South Carolina	0.0	0.2	0.2	0.4	0.4
South Dakota	0.0	0.9	0.8	0.1	0.7
Tennessee	0.0	3.9	4.0	0.2	0.5
Texas	0.1	4.0	3.2	0.5	0.7
Utah	0.0	1.5	1.7	0.4	1.0
Vermont	-	1.6	0.4	0.2	2.0
Virginia	0.0	3.1	1.1	0.9	2.8
Washington	0.2	8.7	9.0	3.1	6.9
West Virginia	0.4	0.9	1.7	0.1	0.6
Wisconsin	0.0	1.4	1.9	0.4	1.2
Wyoming	0.0	1.9	1.6	0.4	0.8
Puerto Rico	0.0	0.3	0.3	0.1	0.1
Virgin Islands	2.0	13.0	9.1	6.2	11.3
Guam	3.1	20.6	20.2	7.1	15.6
American Samoa ²	-	---	-	---	---
Northern Marianas	-	0.9	-	-	1.5

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, 2023--Con.
 [By place of residence]

Reporting area	Weight gain	Did mother get WIC food for herself during this pregnancy	Live-birth order	Total-birth order	Birth interval
Total of reporting areas ¹	2.8	1.2	0.3	0.4	3.1
Alabama	1.4	0.1	0.0	0.0	1.3
Alaska	6.0	1.8	0.9	1.3	2.6
Arizona	1.6	0.5	0.1	0.1	0.6
Arkansas	4.6	0.8	0.2	0.3	3.4
California	3.1	0.8	0.1	0.2	0.8
Colorado	5.5	1.3	0.1	0.1	2.9
Connecticut	0.7	0.2	0.0	0.0	1.7
Delaware	1.4	3.4	0.2	0.3	3.9
District of Columbia	3.8	1.4	0.1	0.1	7.6
Florida	3.1	0.8	0.7	0.9	1.8
Georgia	0.8	0.7	0.2	0.2	2.1
Hawaii	6.2	11.1	-	-	3.5
Idaho	2.5	0.9	0.4	0.7	1.9
Illinois	2.5	0.4	0.2	0.3	1.9
Indiana	2.1	1.9	0.2	0.4	2.3
Iowa	1.4	0.3	0.0	0.0	2.6
Kansas	1.5	0.2	0.0	0.0	1.5
Kentucky	0.8	0.7	0.0	0.0	2.1
Louisiana	3.2	2.1	0.0	0.1	2.8
Maine	4.1	0.5	0.1	0.4	2.9
Maryland	4.9	1.2	0.0	0.0	5.6
Massachusetts	2.5	1.8	0.3	0.4	3.9
Michigan	2.2	1.5	0.3	0.8	3.4
Minnesota	2.0	0.4	0.1	0.2	2.2
Mississippi	1.1	0.2	0.0	0.0	0.8
Missouri	4.0	1.5	0.3	0.5	4.7
Montana	0.7	0.1	0.1	0.1	1.0
Nebraska	2.0	0.5	0.0	0.1	2.0
Nevada	2.5	1.7	0.2	1.8	1.7
New Hampshire	2.8	1.7	0.5	0.8	1.9
New Jersey	3.0	2.5	0.0	0.0	2.6
New Mexico	2.4	0.5	0.2	0.3	4.7
New York (excluding NYC)	4.9	3.7	1.0	1.0	6.5
New York City	1.7	1.0	0.5	0.6	6.2
North Carolina	2.5	0.3	0.0	0.1	1.8
North Dakota	3.5	2.3	0.1	0.1	3.3
Ohio	2.2	0.7	0.3	0.5	2.8
Oklahoma	1.8	0.4	0.0	0.1	3.2
Oregon	2.2	1.5	0.6	0.9	2.6
Pennsylvania	4.7	2.6	0.2	0.8	6.7
Rhode Island	2.6	0.2	1.2	1.9	2.8
South Carolina	0.9	1.4	0.1	0.1	3.0
South Dakota	1.2	1.1	0.5	0.6	2.4
Tennessee	1.5	0.7	0.1	0.1	4.6
Texas	1.1	0.0	0.1	0.1	4.8
Utah	2.5	2.2	0.3	0.3	1.8
Vermont	3.3	1.2	0.1	0.3	2.5
Virginia	3.6	1.1	0.2	0.2	1.3
Washington	13.7	5.5	4.7	5.2	7.8
West Virginia	2.6	1.1	0.8	1.0	4.4
Wisconsin	3.8	0.8	0.1	0.1	2.4
Wyoming	1.6	0.2	-	0.0	1.7
Puerto Rico	0.6	0.1	0.5	1.1	1.2
Virgin Islands	17.7	22.4	5.3	19.0	16.7
Guam	19.5	8.0	0.2	0.3	6.2
American Samoa ²	-	-	-	-	---
Northern Marianas	3.4	0.2	-	-	0.6

See footnotes at end of table.

Table B. Percent of birth records on which specified items were not stated: United States and each state and territory, New York City, and the District of Columbia, 2023--Con.
 [By place of residence]

Reporting areas	Pregnancy interval	Cigarette smoking before and during pregnancy	Source of payment ³	Risk Factors in this Pregnancy	Infections present
Total of reporting areas ¹	11.0	0.4	0.9	0.2	0.5
Alabama	7.1	0.1	0.1	0.0	0.0
Alaska	12.7	2.1	1.3	0.5	0.7
Arizona	3.5	0.1	0.2	-	0.0
Arkansas	8.2	0.4	1.0	0.0	0.0
California	7.0	0.4	0.3	0.0	0.4
Colorado	13.0	0.2	0.3	0.0	0.0
Connecticut	11.0	0.1	0.1	0.1	0.1
Delaware	13.4	0.7	0.6	0.4	0.8
District of Columbia	16.6	0.8	0.3	0.1	0.2
Florida	8.2	0.1	0.6	0.2	0.6
Georgia	5.7	0.2	0.1	0.2	0.3
Hawaii	16.3	1.6	0.3	-	-
Idaho	5.5	0.4	0.5	0.1	0.4
Illinois	10.0	0.2	0.2	0.1	0.1
Indiana	6.4	0.6	0.3	0.5	2.3
Iowa	9.7	0.1	0.0	0.0	0.0
Kansas	8.8	0.4	1.0	-	-
Kentucky	7.7	0.5	1.0	0.3	1.0
Louisiana	8.9	1.0	0.0	-	-
Maine	12.9	0.1	0.8	0.1	0.4
Maryland	19.1	0.3	0.4	0.1	0.0
Massachusetts	14.3	0.0	0.4	0.2	0.3
Michigan	13.1	0.8	0.8	0.3	1.4
Minnesota	9.1	0.1	0.3	0.1	0.2
Mississippi	6.5	0.2	0.1	0.0	0.0
Missouri	14.6	1.6	1.6	0.0	0.0
Montana	2.1	0.1	0.1	-	0.0
Nebraska	8.9	0.1	0.6	0.1	0.2
Nevada	9.9	0.6	0.3	0.0	0.0
New Hampshire	10.9	0.9	0.9	0.3	0.3
New Jersey	14.4	1.0	0.7	0.0	0.9
New Mexico	12.3	0.3	0.8	0.0	0.6
New York (excluding NYC)	19.6	0.1	0.5	0.4	0.8
New York City	24.8	0.0	0.2	0.2	0.3
North Carolina	9.6	0.0	0.2	0.0	1.8
North Dakota	12.7	0.9	1.4	-	-
Ohio ⁹	15.3	0.1	0.6	0.0	0.1
Oklahoma	11.8	0.1	0.4	0.0	0.0
Oregon	11.5	1.0	0.6	0.0	0.0
Pennsylvania	20.0	0.1	3.1	1.1	1.4
Rhode Island	10.6	0.7	0.2	0.3	1.0
South Carolina	10.6	0.5	0.1	0.1	0.5
South Dakota	7.8	0.6	0.4	0.1	0.1
Tennessee	9.6	0.5	0.4	0.0	0.0
Texas	9.1	0.3	2.0	0.4	0.6
Utah	8.8	0.3	11.0	-	-
Vermont	14.0	0.8	0.4	0.0	-
Virginia	8.1	0.0	0.3	0.0	0.0
Washington	20.6	3.0	3.3	0.8	0.6
West Virginia	13.7	0.1	0.3	0.6	0.8
Wisconsin	10.3	0.6	0.5	0.2	0.4
Wyoming	11.9	2.5	0.8	0.0	0.0
Puerto Rico	2.2	0.1	0.4	0.2	0.6
Virgin Islands	36.3	15.0	10.0	4.3	4.4
Guam	7.5	21.9	11.1	1.2	0.7
American Samoa ²	---	---	-	---	---
Northern Marianas	9.2	-	-	-	-

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, 2023--Con.
 [By place of residence]

Reporting areas	Obstetric Procedures	Characteristics of labor and delivery	Method of delivery		Maternal morbidity
			Fetal presentation	Final route and method of delivery	
Total of reporting areas ¹	0.2	0.1	0.3	0.1	0.2
Alabama	-	-	0.0	0.0	-
Alaska	0.4	0.2	0.0	0.0	0.2
Arizona	0.0	-	0.1	0.0	-
Arkansas	0.0	0.0	0.0	0.0	0.0
California	0.4	0.2	0.1	0.0	0.2
Colorado	0.0	0.0	0.0	0.0	0.0
Connecticut	0.1	0.0	0.0	-	0.0
Delaware	0.2	0.0	0.1	0.1	0.4
District of Columbia	0.1	0.1	0.3	0.0	0.1
Florida	0.3	0.0	0.4	0.1	0.2
Georgia	0.1	0.1	0.1	0.1	0.1
Hawaii	-	-	0.1	-	-
Idaho	0.1	0.1	0.3	0.1	0.0
Illinois	0.1	0.0	0.2	0.0	0.1
Indiana	0.1	0.0	0.2	0.0	0.1
Iowa	0.0	0.0	0.0	-	0.0
Kansas	-	-	0.0	0.0	-
Kentucky	0.6	0.2	0.5	0.1	0.3
Louisiana	-	-	0.0	0.0	-
Maine	0.0	0.1	0.2	0.0	0.1
Maryland	0.0	0.0	0.5	0.0	0.0
Massachusetts	0.2	0.2	0.3	0.3	0.2
Michigan	0.1	0.1	0.5	0.0	0.2
Minnesota	0.2	0.1	0.5	0.1	0.1
Mississippi	0.0	0.0	0.1	0.0	0.0
Missouri	0.0	0.0	0.8	0.1	0.0
Montana	-	-	0.1	0.1	0.0
Nebraska	0.2	0.1	0.0	0.0	0.1
Nevada	0.0	0.0	0.0	0.0	0.0
New Hampshire	0.3	0.2	-	0.0	0.3
New Jersey	1.5	-	0.2	-	0.2
New Mexico	0.0	-	0.2	0.0	-
New York (excluding NYC)	0.6	0.0	0.5	0.4	0.5
New York City	0.1	0.0	0.1	0.0	0.2
North Carolina	0.0	0.0	0.0	0.2	0.0
North Dakota	-	0.0	-	-	0.0
Ohio ⁹	0.0	0.0	0.2	0.1	0.0
Oklahoma	0.0	0.0	0.1	0.1	0.0
Oregon	0.0	0.1	0.3	0.0	0.5
Pennsylvania	0.7	0.4	1.2	0.1	1.5
Rhode Island	0.4	0.2	0.6	0.5	0.3
South Carolina	0.0	0.0	0.1	0.0	0.4
South Dakota	0.1	0.1	0.0	0.0	0.1
Tennessee	0.0	0.0	0.0	0.0	0.0
Texas	0.0	0.0	0.0	0.1	0.0
Utah	-	-	-	0.0	-
Vermont	0.0	0.0	0.1	-	0.0
Virginia	0.0	0.0	0.2	0.0	0.0
Washington	1.3	0.5	2.5	0.6	0.7
West Virginia	0.6	0.0	0.7	0.0	0.4
Wisconsin	0.1	0.1	0.5	0.2	0.1
Wyoming	0.0	0.0	0.0	-	-
Puerto Rico	1.2	1.5	0.4	0.0	1.3
Virgin Islands	4.8	3.5	12.3	3.7	7.1
Guam	0.8	1.1	2.9	1.8	1.0
American Samoa ²	---	---	---	---	---
Northern Marianas	-	-	-	-	-

See footnotes at end of table.

Table B. Percent of birth records on which specified items were not stated: United States and each state and territory, New York City, and the District of Columbia, 2023--Con.
 [By place of residence]

Reporting area	Birthweight	Obstetric estimate of gestation	Apgar score		Abnormal conditions
			5-minute	10-minute	
Total of reporting areas ¹	0.1	0.1	0.4	0.5	0.2
Alabama	0.0	0.1	0.3	0.3	0.0
Alaska	0.0	0.1	0.6	0.6	0.1
Arizona	0.1	0.1	0.3	0.3	0.0
Arkansas	0.1	0.1	0.5	0.5	0.0
California	0.0	0.0	0.8	1.1	0.5
Colorado	0.4	0.1	0.6	0.6	0.3
Connecticut	0.0	0.0	0.2	0.2	0.0
Delaware	0.1	0.0	0.3	0.4	0.1
District of Columbia	0.0	0.1	0.4	0.5	0.1
Florida	0.0	0.0	0.5	0.6	0.3
Georgia	0.0	0.0	0.4	0.4	0.1
Hawaii	0.1	0.1	0.5	0.5	-
Idaho	0.1	0.0	0.6	0.6	0.1
Illinois	0.0	0.0	0.2	0.2	0.1
Indiana	0.1	0.0	0.2	0.2	0.0
Iowa	0.0	0.1	0.4	0.5	0.0
Kansas	0.1	0.1	0.5	0.6	-
Kentucky	0.1	0.0	0.3	0.4	0.2
Louisiana	0.0	0.1	0.2	0.2	-
Maine	0.1	0.1	0.2	0.3	0.1
Maryland	0.0	0.1	0.3	0.4	0.0
Massachusetts	0.4	0.3	0.5	0.5	0.2
Michigan	0.1	0.1	0.3	0.3	0.1
Minnesota	0.2	0.1	0.4	0.4	0.1
Mississippi	0.1	0.1	0.9	0.9	0.0
Missouri	0.0	0.1	0.5	0.5	0.0
Montana	0.1	0.1	0.4	0.5	0.1
Nebraska	0.0	0.0	0.8	0.9	0.0
Nevada	0.0	0.0	0.2	0.2	0.0
New Hampshire	0.1	0.2	0.3	0.4	0.4
New Jersey	0.0	0.0	0.3	0.4	0.0
New Mexico	0.0	0.1	0.2	0.2	-
New York (excluding NYC)	0.4	0.3	0.8	0.9	0.5
New York City	0.0	0.0	0.2	0.4	0.1
North Carolina	0.1	0.0	0.5	0.5	0.0
North Dakota	0.0	0.1	0.4	0.4	0.0
Ohio	0.1	0.1	0.3	0.4	0.0
Oklahoma	0.1	0.1	0.3	0.4	0.0
Oregon	0.1	0.1	0.3	0.3	0.0
Pennsylvania	0.1	0.2	0.6	0.6	1.3
Rhode Island	0.1	-	0.2	0.2	0.5
South Carolina	0.0	0.0	0.3	0.3	0.0
South Dakota	0.1	0.1	0.4	0.5	0.1
Tennessee	0.0	0.1	0.3	0.4	-
Texas	0.1	0.0	0.2	0.2	0.0
Utah	0.0	0.0	0.6	0.6	0.0
Vermont	0.1	0.1	0.5	0.6	0.0
Virginia	0.1	0.0	0.3	0.5	0.0
Washington	0.2	0.3	1.1	1.1	1.1
West Virginia	0.0	0.0	0.5	0.5	0.4
Wisconsin	0.0	0.1	0.6	0.6	0.1
Wyoming	0.1	0.0	0.3	0.4	0.0
Puerto Rico	0.0	0.0	0.1	0.1	0.3
Virgin Islands	2.4	2.1	3.7	3.7	4.5
Guam	0.9	0.7	0.9	1.7	0.9
American Samoa ²	-	-	-	-	---
Northern Marianas	-	0.2	-	-	-

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, 2023--Con.
 [By place of residence]

Reporting area	Congenital anomalies of the newborn	Infant breastfed ⁴
Total of reporting areas ¹	0.2	0.8
	0.0	0.0
Alabama	0.0	0.2
Alaska	-	0.3
Arizona	0.0	0.7
Arkansas	0.0	0.9
California	0.5	---
Colorado	0.7	0.1
Connecticut	0.0	0.5
Delaware	0.2	0.4
District of Columbia	0.1	1.0
Florida	0.5	0.3
Georgia	0.1	0.3
Hawaii	-	0.7
Idaho	0.1	0.6
Illinois	0.1	0.3
Indiana	0.2	1.2
Iowa	0.0	0.2
Kansas	0.0	0.3
Kentucky	0.3	0.7
Louisiana	-	2.3
Maine	0.1	0.7
Maryland	0.0	0.1
Massachusetts	0.2	0.4
Michigan	0.4	---
Minnesota	0.1	0.4
Mississippi	0.0	0.2
Missouri	0.0	1.7
Montana	0.0	0.2
Nebraska	0.0	0.7
Nevada	0.0	1.4
New Hampshire	0.3	1.0
New Jersey	0.2	1.1
New Mexico	0.0	0.5
New York (excluding NYC)	0.6	0.8
New York City	0.3	0.3
North Carolina	0.0	0.0
North Dakota	0.0	5.7
Ohio	0.0	0.6
Oklahoma	0.1	1.0
Oregon	0.0	1.1
Pennsylvania	0.0	3.8
Rhode Island	0.3	0.5
South Carolina	0.0	0.4
South Dakota	-	0.7
Tennessee	0.0	0.7
Texas	0.0	0.0
Utah	0.0	0.0
Vermont	0.0	0.4
Virginia	0.0	0.7
Washington	1.3	2.8
West Virginia	0.0	4.5
Wisconsin	0.6	1.6
Wyoming	0.1	0.4
	0.0	0.0
Puerto Rico	0.3	0.1
Virgin Islands	5.6	7.4
Guam	1.0	7.5
American Samoa ²	---	---
Northern Marianas	-	0.9

0.0 Quantity more than zero but less than 0.05.

---Data not available.

- Quantity zero.

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

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

³ Expanded source of payment categories reported by 35 states and the District of Columbia; see Detailed technical notes.

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

Table 1. Estimated total population, by race and Hispanic origin and specified Hispanic origin group and estimated female population, by age and race and Hispanic origin and specified Hispanic origin group of woman, and standard errors by age and specified Hispanic origin group: United States, 2023
 [Populations estimated as of July 1]

Race and Hispanic origin	Total population	Female population										
		15-44 years	10-14 years	15-19 years			20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years
				Total	15-17 years	18-19 years						
All races and origins\1	334,914,895	65,974,992	10,166,646	10,778,845	6,506,421	4,272,424	10,684,361	10,842,462	11,640,867	11,142,564	10,885,893	9,930,655
Non-Hispanic, single-race\2												
White	195,432,584	34,990,162	4,951,661	5,384,908	3,219,346	2,165,562	5,518,156	5,670,972	6,205,777	6,150,719	6,059,630	5,548,179
Black	42,313,088	9,241,203	1,411,852	1,482,731	904,523	578,208	1,487,082	1,555,513	1,738,159	1,519,458	1,458,260	1,316,101
American Indian or Alaska	2,432,721	519,793	82,688	88,888	53,887	35,001	86,927	88,237	95,217	83,203	77,321	69,579
Asian	20,685,425	4,638,771	560,295	582,890	340,476	242,414	638,423	747,223	893,693	909,792	866,750	788,771
Native Hawaiian or Pacific	649,184	142,876	21,733	22,439	13,381	9,058	21,655	22,684	26,130	25,840	24,128	19,911
Hispanic\3 Total	65,219,145	14,604,723	2,663,779	2,778,693	1,701,760	1,076,933	2,561,546	2,431,408	2,398,314	2,230,399	2,204,363	2,030,139
Mexican	---	---	---	---	---	---	---	---	---	---	---	---
Puerto Rican	---	---	---	---	---	---	---	---	---	---	---	---
Cuban	---	---	---	---	---	---	---	---	---	---	---	---
Dominican	---	---	---	---	---	---	---	---	---	---	---	---
Other Hispanic\4	---	---	---	---	---	---	---	---	---	---	---	---

--- Data not available.

1 Includes population estimates of race and origin groups not shown separately, such as Hispanic single-race white, Hispanic single-race black, and non-Hispanic multiple-race people reported.

3 Includes all persons of Hispanic origin of any race.

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

NOTES: Populations are based on estimates derived from a base that incorporates the 2020 Census, Vintage 2020 estimates, and 2020 Demographic Analysis estimates; 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, as of July 1, 2023). Populations for Hispanic total are based on estimates derived from a base that incorporates the 2020 Census, Vintage 2020 estimates, and 2020 Demographic Analysis estimates, as of July 1, 2023. 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 52 and 57.

Table 2. Estimated total population, female population aged 15-44 years, and age-specific female population: United States, each state, and territory: July 1, 2023

Geographic Area	Total population	Female population										
		15-44 years	10-14 years	15-19 years			20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years
				Total	15-17 years	18-19 years						
United States	334,914,895	65,974,992	10,166,646	10,778,845	6,506,421	4,272,424	10,684,361	10,842,462	11,640,867	11,142,564	10,885,893	9,930,655
Alabama	5,108,468	999,115	156,384	170,024	100,583	69,441	170,002	160,710	173,584	162,404	162,391	153,501
Alaska	733,406	144,574	24,483	21,412	14,005	7,407	21,199	24,068	27,962	26,495	23,438	19,169
Arizona	7,431,344	1,442,115	223,348	241,446	145,027	96,419	244,777	245,200	251,032	231,656	228,004	210,611
Arkansas	3,067,732	595,644	97,218	102,294	63,071	39,223	100,095	96,706	102,682	96,999	96,868	89,390
California	38,965,193	7,931,979	1,192,145	1,273,942	764,390	509,552	1,228,809	1,319,362	1,452,526	1,358,753	1,298,587	1,192,995
Colorado	5,877,610	1,224,046	169,798	183,130	109,420	73,710	185,120	213,491	228,637	213,490	200,178	173,589
Connecticut	3,617,176	689,033	101,977	117,763	68,257	49,506	114,917	107,750	114,896	117,956	115,751	107,171
Delaware	1,031,890	191,658	29,761	33,000	19,218	13,782	29,811	29,978	34,421	32,829	31,619	28,481
District of Columbia	678,972	183,511	16,227	19,813	8,702	11,111	26,711	40,190	38,801	32,365	25,631	18,954
Florida	22,610,726	4,111,275	607,238	640,624	390,363	250,261	641,986	664,047	736,386	719,463	708,769	672,075
Georgia	11,029,227	2,277,881	358,519	378,753	233,421	145,332	368,046	371,865	400,883	379,352	378,982	352,780
Hawaii	1,435,138	260,337	40,646	37,433	23,502	13,931	38,257	42,460	47,391	48,050	46,746	41,499
Idaho	1,964,726	389,151	66,836	76,353	42,801	33,552	62,830	59,972	63,455	62,993	63,548	55,891
Illinois	12,549,689	2,476,419	381,310	405,293	249,789	155,504	401,556	409,489	428,982	415,983	415,116	380,916
Indiana	6,862,199	1,341,793	220,395	229,620	141,101	88,519	233,041	217,024	228,351	216,343	217,414	199,698
Iowa	3,207,004	610,697	100,998	109,975	65,414	44,561	110,264	95,165	98,597	96,618	100,078	87,413
Kansas	2,940,546	572,741	98,160	101,683	61,734	39,949	102,368	90,150	92,268	93,301	92,971	80,926
Kentucky	4,526,154	860,718	139,352	143,462	89,723	53,739	143,835	141,450	150,383	138,549	143,039	134,653
Louisiana	4,573,749	909,420	146,011	151,000	93,355	57,645	148,930	142,073	159,100	155,189	153,128	131,991
Maine	1,395,722	247,378	34,794	39,329	23,027	16,302	37,513	39,461	44,316	44,074	42,685	39,326
Maryland	6,180,253	1,212,719	189,887	195,325	119,990	75,335	181,895	190,189	213,928	218,850	212,532	189,903
Massachusetts	7,001,399	1,414,563	186,492	224,315	121,672	102,643	242,591	238,065	244,998	241,164	223,430	205,317
Michigan	10,037,261	1,897,849	294,458	314,887	190,124	124,763	326,807	311,898	335,920	304,081	304,256	284,267
Minnesota	5,737,915	1,108,806	181,666	188,638	116,149	72,489	176,654	175,216	186,021	192,551	189,726	160,023
Mississippi	2,939,690	581,588	94,526	104,221	63,537	40,684	99,186	91,614	98,474	92,526	95,567	88,769
Missouri	6,196,156	1,202,659	190,257	198,616	122,239	76,377	200,001	195,346	208,970	200,715	199,011	176,497
Montana	1,132,812	212,141	33,165	33,688	21,031	12,657	35,191	34,633	37,052	35,814	35,763	30,801
Nebraska	1,978,379	385,861	66,426	68,423	41,677	26,746	68,020	61,195	61,833	63,024	63,366	54,229
Nevada	3,194,176	626,341	96,452	95,040	61,689	33,351	89,772	106,035	118,210	110,831	106,453	96,759
New Hampshire	1,402,054	254,820	35,525	40,827	23,532	17,295	41,678	40,703	45,260	44,434	41,918	38,760
New Jersey	9,290,841	1,760,777	279,660	285,171	179,212	105,959	272,063	283,418	306,901	306,245	306,979	289,859
New Mexico	2,114,371	406,826	65,624	70,600	42,775	27,825	68,505	64,882	69,381	67,694	65,764	58,530
New York	19,571,216	3,860,526	545,440	587,856	341,457	246,399	623,665	674,646	699,540	655,009	619,810	578,576
North Carolina	10,835,491	2,144,377	324,484	353,896	209,533	144,363	352,901	352,308	380,125	355,985	349,162	332,869
North Dakota	783,926	155,636	25,068	26,808	15,092	11,716	29,686	25,311	26,181	24,581	23,069	18,987
Ohio	11,785,935	2,251,014	357,176	374,299	229,246	145,053	366,321	370,781	398,563	373,631	367,419	335,605
Oklahoma	4,053,824	810,519	135,836	138,653	84,849	53,804	137,735	130,124	138,508	133,290	132,209	114,526
Oregon	4,233,358	834,726	118,400	124,050	76,103	47,947	127,548	136,754	152,698	147,693	145,983	129,169
Pennsylvania	12,961,683	2,447,944	367,404	413,980	234,571	179,409	397,363	388,497	430,449	419,281	398,374	362,315
Rhode Island	1,095,962	217,057	27,884	36,166	18,473	17,693	37,118	35,011	38,810	35,984	33,968	30,531
South Carolina	5,373,555	1,034,961	161,257	173,187	103,963	69,224	167,969	165,186	184,421	173,303	170,895	158,321
South Dakota	919,318	170,641	30,427	30,517	18,936	11,581	29,030	27,180	27,891	28,304	27,719	23,639
Tennessee	7,126,489	1,409,555	215,521	222,849	139,110	83,739	229,481	241,933	253,973	232,747	228,572	213,822
Texas	30,503,301	6,397,948	1,055,726	1,072,826	663,315	409,511	1,035,013	1,054,913	1,112,138	1,077,232	1,045,826	941,456
Utah	3,417,734	754,931	131,937	138,294	84,322	53,972	142,272	126,777	120,014	111,230	116,344	101,364
Vermont	647,464	120,313	16,073	20,274	10,732	9,542	21,438	18,131	19,884	20,288	20,298	18,043
Virginia	8,715,698	1,727,063	259,440	278,157	165,005	113,152	278,101	279,243	299,887	299,128	292,547	264,196
Washington	7,812,880	1,575,422	230,523	228,489	142,853	85,636	229,639	267,166	301,269	283,363	265,496	228,331
West Virginia	1,770,071	312,958	49,997	52,699	31,994	20,705	53,769	49,664	53,593	49,268	53,965	53,005
Wisconsin	5,910,955	1,114,962	175,749	190,248	114,212	76,036	195,176	178,187	183,026	182,739	185,586	165,110
Wyoming	584,057	110,004	18,566	19,497	12,125	7,372	17,706	16,845	18,296	18,717	18,943	16,047
Puerto Rico	3,205,691	610,321	81,675	91,921	54,416	37,505	101,692	109,103	109,557	94,557	103,491	84,877
Virgin Islands	104,917	18,514	3,425	3,013	1,897	1,116	2,462	2,876	3,261	3,682	3,220	3,133
Guam	169,330	32,812	7,086	6,414	3,959	2,455	6,134	5,747	5,538	4,715	4,264	4,259
American Samoa	44,620	9,852	1,934	2,017	1,138	879	1,829	1,778	1,762	1,266	1,200	1,219
Northern Marianas	51,296	9,073	1,987	2,304	1,478	826	1,840	1,663	1,192	920	1,154	1,602

SOURCE: U.S. Census Bureau. See references 52-54.

**Table 3. Population of the United States,
2010-2022**

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

Year	United States	
	Population including Armed Forces abroad	Population residing in area
2023	335,160,938	334,914,895
2022	333,537,250	333,287,557
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 reference 59.

Documentation Table 1. Number and percentage of live births by race and Hispanic origin of mother: United States, 2023

Race	Number		Percentage	
	Total	Non-Hispanic	Total\1	Non-Hispanic
All races\2	3,596,017	2,617,957	100.0	100.0
One race	3,489,841	2,528,969	97.0	96.6
White	2,656,645	1,787,051	73.9	68.3
Black	554,733	491,494	15.4	18.8
American Indian and Alaska Native (AIAN)	35,114	24,571	1.0	0.9
Asian	229,215	215,738	6.4	8.2
Native Hawaiian and Other Pacific Islander (NHOPI)	14,134	10,115	0.4	0.4
More than one race	106,176	88,988	3.0	3.4
Two races	97,180	82,233	2.7	3.1
Black and White	45,270	38,656	1.3	1.5
Black and AIAN	3,038	2,558	0.1	0.1
Black and Asian	2,704	2,420	0.1	0.1
Black and NHOPI	662	569	0.0	0.0
AIAN and White	16,352	12,735	0.5	0.5
AIAN and Asian	445	336	0.0	0.0
AIAN and NHOPI	198	140	0.0	0.0
Asian and White	23,312	20,519	0.6	0.8
Asian and NHOPI	2,310	2,127	0.1	0.1
NHOPI and White	2,889	2,173	0.1	0.1
Three races	8,509	6,446	0.2	0.2
Black, AIAN and White	2,732	2,129	0.1	0.1
Black AIAN and Asian	102	79	0.0	0.0
Black, AIAN and NHOPI	42	33	0.0	0.0
Black, Asian and White	1,152	954	0.0	0.0
Black, Asian and NHOPI	129	106	0.0	0.0
Black, NHOPI, and White	231	186	0.0	0.0
AIAN, Asian and White	490	335	0.0	0.0
AIAN, NHOPI and White	127	81	0.0	0.0
AIAN, Asian and NHOPI	49	30	0.0	0.0
Asian, NHOPI and White	3,455	2,513	0.1	0.1
Four races	463	297	0.0	0.0
Black, AIAN, Asian and White	134	90	0.0	0.0
Black, AIAN, Asian, and NHOPI	14	13	*	*
Black, AIAN, NHOPI and White	24	18	0.0	*
Black, Asian, NHOPI and White	112	83	0.0	0.0
AIAN, Asian, NHOPI and White	179	93	0.0	0.0
Five races				
Black, AIAN, Asian, NHOPI and White	24	12	0.0	*

0.0 Quantity more than zero but less than 0.5.

* Estimate does not meet NCHS standards of reliability.

\1 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.

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

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