

Shifts in the Distribution of Births by Gestational Age: United States, 2014–2022

by Joyce A. Martin, M.P.H., and Michelle J.K. Osterman, M.H.S.

Abstract

Objectives—This report presents changes in the distribution of singleton births by gestational age in the United States for 2014–2022, by maternal age and race and Hispanic origin.

Methods—Data are based on all birth certificates for singleton births registered in the United States from 2014 to 2022. Gestational age is measured in completed weeks using the obstetric estimate and categorized as early preterm (less than 34 weeks), late preterm (34–36 weeks), total preterm (less than 37 weeks), early term (37–38 weeks), full term (39–40 weeks), and late- and post-term (41 and later weeks). Data are shown by maternal age and race and Hispanic origin. Single weeks of gestation at term (37–41 weeks) are also examined.

Results—Despite some fluctuation in most gestational age categories during the pandemic years of 2020–2022, trends from 2014 to 2022 demonstrate a shift towards shorter gestational ages. Preterm and early-term birth rates rose from 2014 to 2022 (by 12% and 20%, respectively), while full-term and late- and post-term births declined (by 6% and 28%, respectively). Similar shifts for each gestational age category were seen across maternal age and race and Hispanic-origin groups. By single week of gestation at term, the largest change was for births at 37 weeks (an increase of 42%).

Keywords: preterm • early- and full-term births • age of mother • race and Hispanic origin • National Vital Statistics System

Introduction

The rate of preterm birth in the United States rose by more than one-third from 1981 to 2006 (1). This rise prompted concern and a heightened awareness of the morbidities associated with births delivered at 34–36 weeks of gestation, or late preterm. Late preterm births comprise about 70% of all preterm births and were the largest contributor to the overall preterm increase over the period (1–3). Subsequently, the greater vulnerability of births

delivered at 37–38 weeks (referred to as early term) compared with those born at 39–40 weeks (full term) also became evident (4) and national organizations such as the March of Dimes, the National Institute for Child Health and Human Development, the Society for Maternal-Fetal Medicine, and the American College of Obstetricians and Gynecologists began to champion the prevention of nonmedically indicated preterm and early-term deliveries (4). Late preterm and early-term births declined for several years from 2007 to 2014, but have been on the rise in recent years (1,5,6).

This report describes changes in the gestational age distribution of singleton births from 2014—the year when the most recent low rates in preterm and early-term birth rates occurred—to 2022 for all births and by maternal age and race and Hispanic origin.

Methods

This report is based on final data from the natality data file from the National Vital Statistics System for 2014–2022. Information from the vital statistics natality file is derived from birth certificates and includes information for all births occurring in the United States (7). This report describes changes in gestational age distribution for 2014–2022. The most recent lows in preterm and early-term birth rates occurred in 2014.

Singleton births are births in pregnancies for which only one fetus is delivered live at any time during the pregnancy. This analysis is restricted to singleton births because multiple births tend to be born at earlier gestational ages than singletons, and changes in the rate of multiple births can impact overall gestational age distribution. Gestational age is based on the obstetric estimate, defined as the best estimate of the infant's gestational age in completed weeks based on the clinician's final estimate of gestation at delivery (7).

Preterm births are defined as births delivered before 37 completed weeks of gestation; early preterm births are those delivered at less than 34 completed weeks of gestation and late



preterm births are those delivered at 34–36 completed weeks. Early-term births are those delivered at 37–38 completed weeks, full-term births are those delivered at 39–40 completed weeks, and late- and post-term births are those delivered at 41 completed weeks and later (see [Figure 1](#)). Births are examined by these gestational age categories and by single week of gestation for weeks 37–41 to better identify changes seen in the broader categories. Rates are calculated per 100 births. Relative percent changes are shown in [Table](#) and [Tables 1](#) and [2](#) for the full reporting period of 2014–2022 and for each year between 2019 and 2022 (2019 to 2020, 2020 to 2021, and 2021 to 2022) to better describe changes for the year before and each year during the COVID-19 pandemic, as changes in birth outcomes have been shown over this period (6). Gestational age was missing for less than 1% of all births and for births to Black non-Hispanic (subsequently, Black), Hispanic, and White non-Hispanic (subsequently, White) mothers for each year of the study period of 2014–2022.

Race and Hispanic origin are reported independently on the birth certificate and are self-reported by the mother. Data for 2014 and 2015 are based on the bridged race of the mother; data for 2016–2022 are single race (7). Where race of the mother

is not reported, it is imputed based on the race of the father if known, or according to the race of the mother on the preceding record with a known race of mother. In 2022, race of mother was imputed for 7.6% of births. Hispanic origin was missing for 1% of records for 2022. Data shown by Hispanic origin include all people of Hispanic origin of any race. Data for non-Hispanic people are shown separately for single-race groups Black and White. Due to small numbers, data for other race and Hispanic-origin groups are not shown.

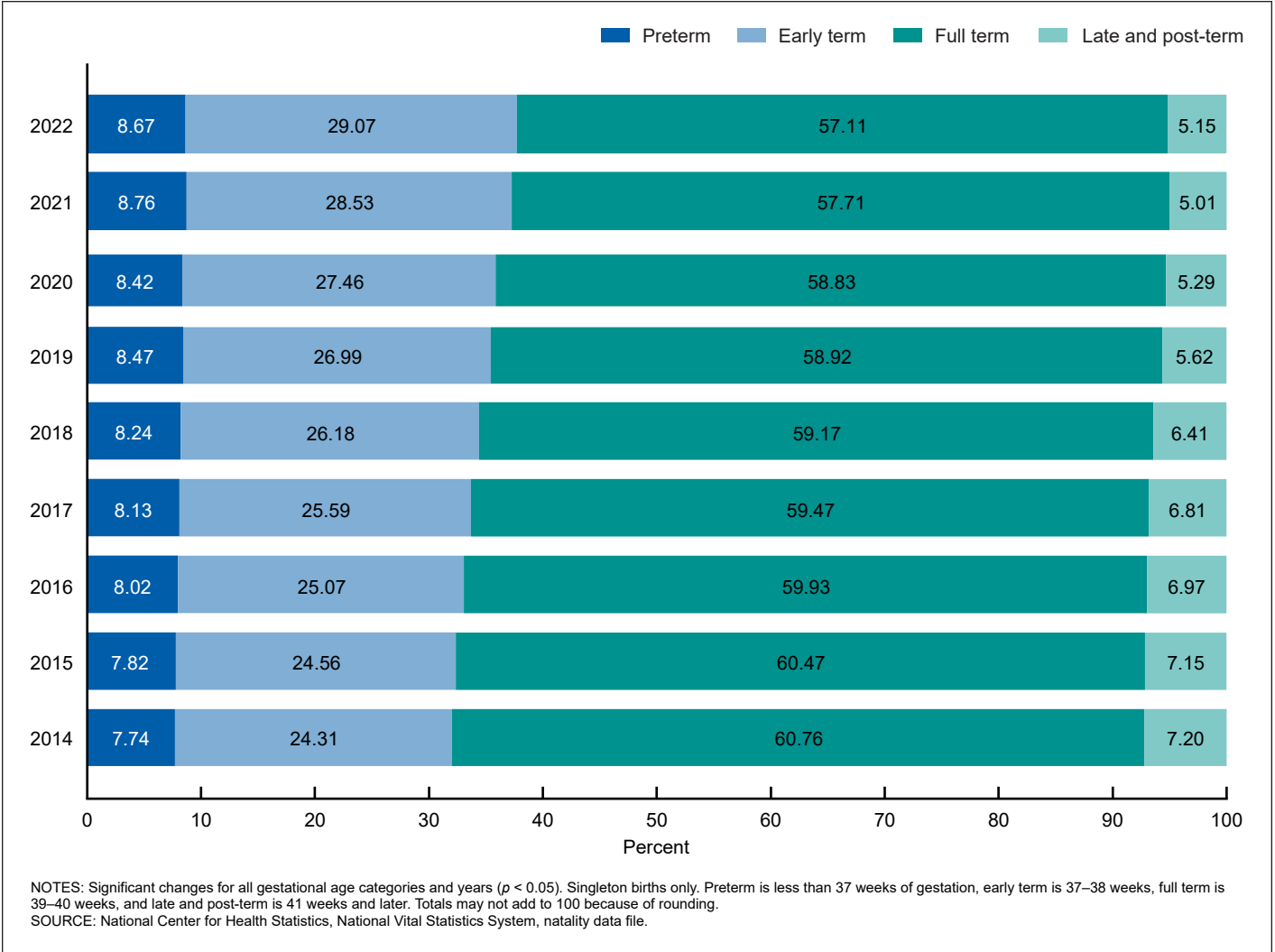
References to single-year changes in rates indicate that differences are statistically significant at the 0.05 level based on a two-tailed z test. Evaluation of long-term trends was conducted using the Joinpoint Regression Program (8). Computations exclude records for which information is unknown.

Results

Preterm births (less than 37 weeks of gestation)

The preterm birth rate rose 12% from 2014 to 2022, from 7.74% to 8.67%. The rate rose an average of 2% annually from 2014 to 2019 (8.47%) and then fluctuated through 2022,

Figure 1. Percent distribution of singleton births, by gestational age: United States, 2014–2022



declining 1% in 2020 (8.42%), increasing 4% in 2021 (8.76%), and declining 1% in 2022 (8.67%) (Table 1 and Figure 1).

Rates for both early and late preterm births rose from 2014 to 2022 (Table 1). The rate of early preterm births increased 4% from 2014 to 2022, from 2.07% to 2.16%, and generally rose from 2014 to 2019 (2.14%), declined in 2020 (2.11%), and fluctuated from 2020 to 2022. The late preterm rate increased 15% from 2014 to 2022, from 5.67% to 6.51%, and rose by an average of 2% annually from 2014 to 2019 (6.32%), was essentially unchanged from 2019 to 2020 (6.30%), and fluctuated from 2020 to 2022.

By maternal age

Preterm birth rates increased for each 10-year maternal age group from 2014 to 2022, ranging from 9% (age 20 or younger) to 16% (age 40 and older) (Table 2, Figure 2). Rates generally rose steadily for each group from 2014 to 2019 (the trend for mothers age 20 or younger was less consistent) and fluctuated from 2019 to 2022.

Early preterm births increased for each 10-year maternal age group for 2014–2022, ranging from 3% (ages 20–29 and

age 40 and older) to 6% (ages 30–39); however, the increase for mothers age 40 and older was not significant. Late preterm birth rates also rose for each age group from 2014 to 2022; increases ranged from 11% to 21%.

By maternal race and Hispanic origin

Preterm birth rates rose for the three largest race and Hispanic-origin groups from 2014 to 2022, from 11% for both Black and White mothers to 13% for Hispanic mothers (Table 1, Figure 3). The preterm rate for Black mothers increased each year from 2014 (11.12%) to 2021 (12.51%), and then declined in 2022 (12.34%). The preterm birth rate for White mothers increased 11% from 2014 to 2022, rising from 6.90% to 7.64%; the rate for Hispanic mothers increased 13%, from 7.72% to 8.72%. Rates for White and Hispanic mothers increased steadily through 2019 and then fluctuated from 2019 to 2022.

Increases in early and late preterm rates were seen for each of the three race and Hispanic-origin groups from 2014 to 2022. Early preterm birth rates rose 2% for Black mothers (from 3.88% to 3.97%), 3% for births to White mothers (1.64% to 1.69%), and 5% for births to Hispanic mothers (2.02% to 2.13%). Late

Figure 2. Percent change in gestational age category, by age of mother: United States, 2014 and 2022

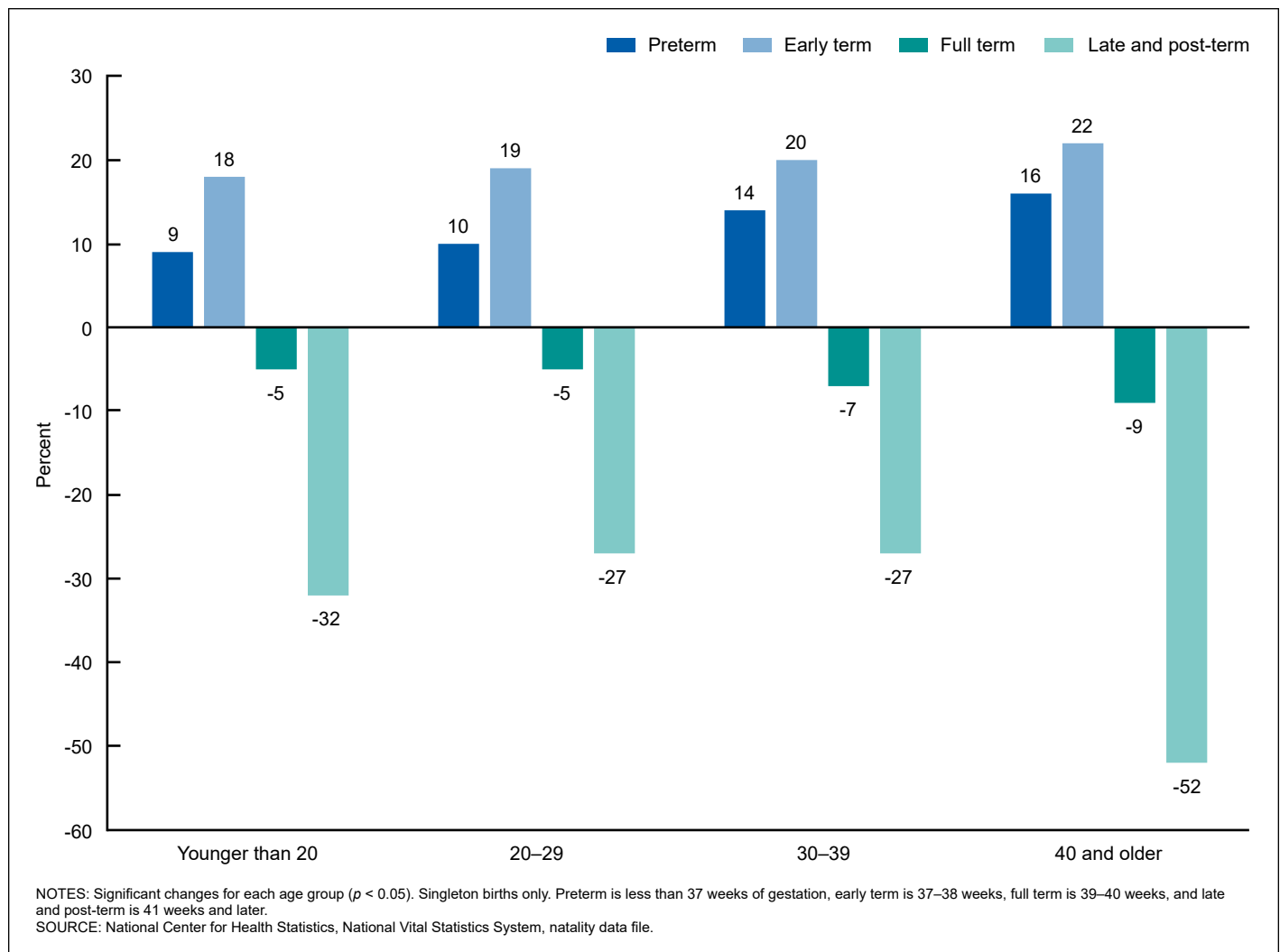
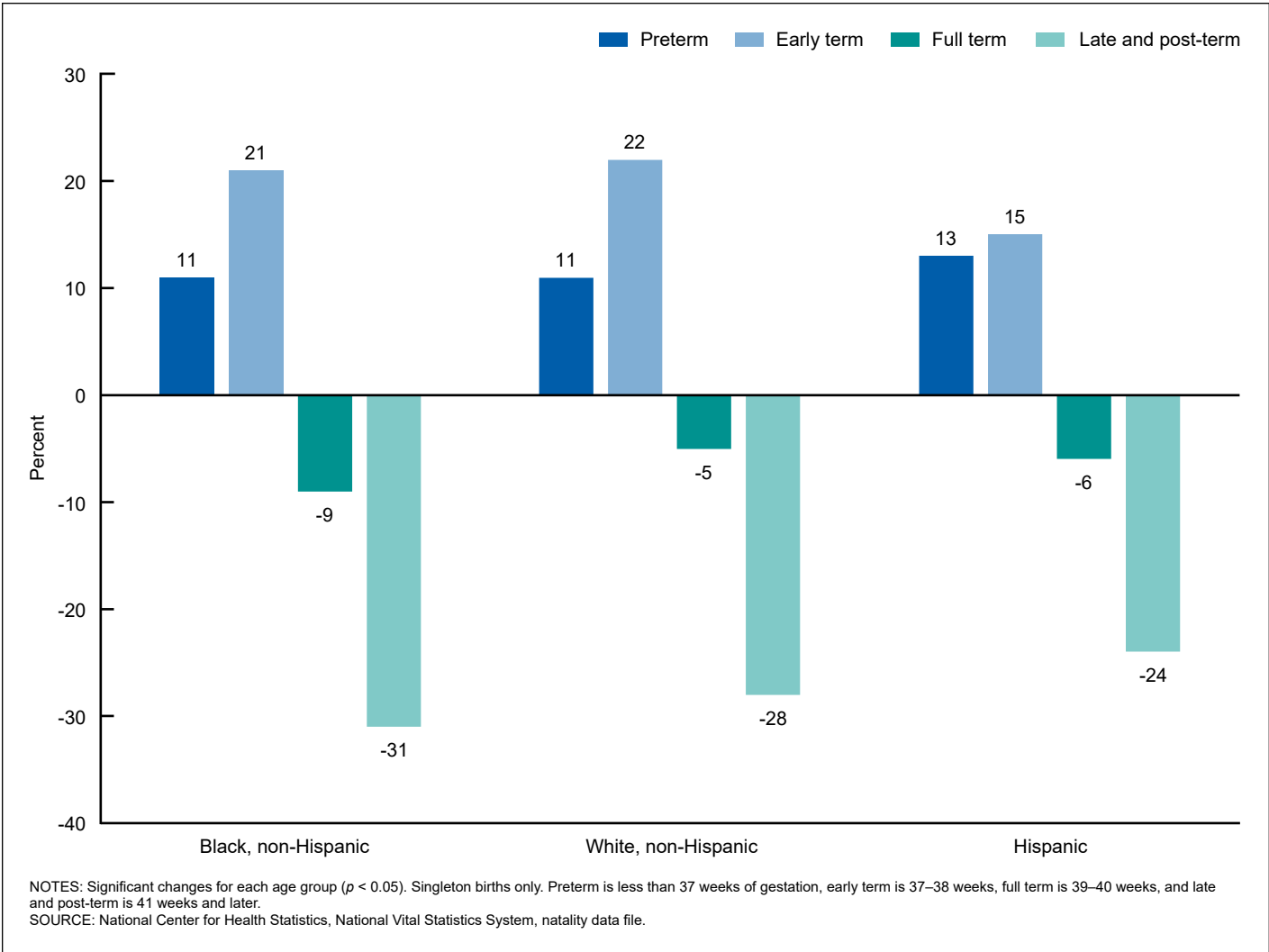


Figure 3. Percent change in gestational age category, by race and Hispanic origin of mother: United States, 2014 and 2022



preterm rates increased 13%–16% from 2014 to 2022 for the three groups, from 7.24% to 8.37% for Black mothers, 5.26% to 5.96% for White mothers, and 5.70% to 6.59% for Hispanic mothers.

Early-term births (37–38 weeks of gestation)

Births delivered early term increased 20% from 2014 to 2022 (Table 1 and Figure 1), from 24.31% to 29.07%. Early-term rates rose by an average of 2% annually from 2014 to 2022.

By maternal age

The early-term birth rate rose by 18%–22% across the 10-year age groups from 2014 to 2022; increases were seen for each age group in each year of the 8-year study period, although the increase between 2019 and 2020 for mothers age 20 or younger was not significant (Table 2, Figure 2).

By maternal race and Hispanic origin

Among Black mothers, the early-term birth rate rose 21% from 2014 (26.93%) to 2022 (32.71%), with increases seen for each year (Table 1, Figure 3). Early-term births to White mothers also rose each year from 2014 (22.48%) to 2022 (27.34%), for a total rise of 22%. Early-term births to Hispanic mothers rose 15% from 2014 (26.14%) to 2022 (29.94%), also rising each year.

Full-term births (39–40 weeks of gestation)

Births delivered full term declined 6% from 2014 (60.76%) to 2022 (57.11%). Rates declined by an average of less than 1% each year from 2014 to 2022, with larger declines for 2020–2022 (Table 1, Figure 1).

By maternal age

Over the 8-year study period, full-term birth rates declined for mothers in each 10-year age group, ranging from 5% (for age 20 or younger and ages 20–29) to 9% (ages 40 and older) for

mothers in each 10-year age group (Table 2, Figure 2). Full-term births generally declined for each age group each year throughout the study period, although not all declines were significant.

By maternal race and Hispanic origin

Full-term births to Black mothers declined 9% from 2014 (56.08%) to 2022 (50.90%), trending downward by 1%–2% each year (Table 1, Figure 3). Among White mothers, full-term births also declined each year for a total decline of 5% from 2014 (62.48%) to 2022 (59.19%). Full-term births to Hispanic mothers declined 6% from 2014 (59.96%) to 2022 (56.63%), declining for most years over the period.

Late- and post-term births (41–42 and later weeks of gestation)

Late- and post-term births declined 28% from 2014 to 2022, from 7.20% to 5.15%. Late- and post-term births declined each year from 2014 to 2021 by an average of 5% each year, and then increased 3% in 2022 (Table 1, Figure 1).

By maternal age

Rates of late- and post-term births declined for each 10-year age group, ranging from 32% (age 20 or younger) to 52% (ages 40 and older) (Table 2, Figure 2). Age-specific rates generally declined for each year from 2014 to 2021 (the decline for mothers age 40 and older from 2020 to 2021 was not significant) and then rose in 2022 for each group except for mothers age 40 and older, for whom the rate declined.

By maternal race and Hispanic origin

The rate of late- and post-term births to Black mothers declined 31% from 2014 (5.87%) to 2022 (4.05%) (Table 1, Figure 3). The rate generally declined through 2021 (3.86%) and rose in 2022 (4.05%). Among White mothers, late- and post-term births declined 28% from 2014 (8.14%) to 2022 (5.83%); rates generally declined through 2021 and rose in 2022. A similar pattern was seen for Hispanic mothers, for whom late- and post-term births declined 24% from 2014 (6.17%) to 2022 (4.71%).

Early-, full-, and late-term births by single week of gestation

Early-term births delivered at 37 weeks rose each year from 2014 (8.17%) through 2022 (11.63%), for a total increase of 42% (Table, Figure 4). Births delivered at 38 weeks generally increased each year from 2014 (16.13%) to 2022 (17.45%), for a total rise of 8%.

Full-term births at 39 weeks fluctuated, but the trend was essentially unchanged from 2014 through 2022 (from 38.71% to 38.84%); the rate increased by 3% from 2014 through 2020 (40.03%) and declined in 2021 (39.61%) and 2022.

In contrast, births at 40 weeks declined 17% from 2014 to 2022, from 22.05% to 18.26%. The rate declined by an average

Table. Percentage of singleton births, by week of gestation: United States, 2014–2022

Year	37	38	39	40	41	42 and later
Percent						
2022.....	11.63	17.45	38.84	18.26	4.88	0.27
2021.....	11.23	17.30	39.61	18.10	4.76	0.25
2020.....	10.54	16.92	40.03	18.80	5.04	0.25
2019.....	10.13	16.86	39.51	19.40	5.36	0.26
2018.....	9.58	16.60	38.73	20.44	6.11	0.31
2017.....	9.16	16.43	38.47	21.00	6.47	0.34
2016.....	8.77	16.30	38.54	21.39	6.61	0.36
2015.....	8.40	16.16	38.60	21.87	6.75	0.41
2014.....	8.17	16.13	38.71	22.05	6.77	0.43
Percent change						
2019–2020...	4	†	1	-3	-6	-3
2020–2021...	7	2	-1	-4	-6	±0
2021–2022...	4	1	-2	1	3	7
2014–2022...	42	8	†	-17	-28	-37

† Less than 0.5.

‡ Not significant at $p < 0.05$.

SOURCE: National Center for Health Statistics, National Vital Statistics System, natality data file.

of 3% annually from 2014 to 2021 (18.10%) and then increased 1% in 2022.

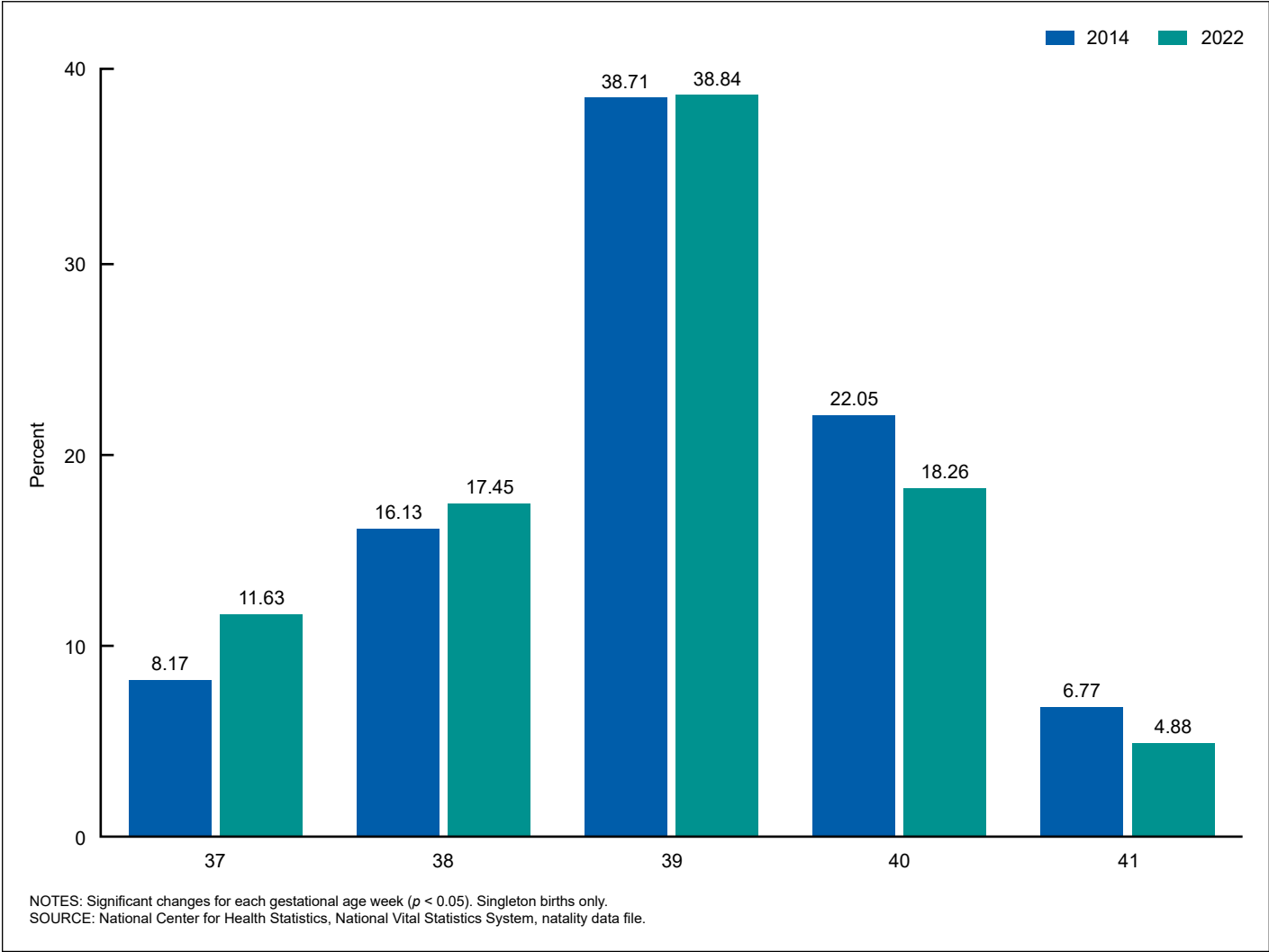
Births at 41 weeks, which comprise most late- and post-term births (94%), declined 28% from 2014 (6.77%) to 2022 (4.88%). Births at 41 weeks generally declined from 2014 through 2021 (4.76%) and then rose in 2022. Births at 42 weeks of gestation and later declined 37% from 2014 (0.43%) to 2022 (0.27%); as with the trends for 41 weeks, the rate generally declined through 2021 (0.25%) and rose in 2022.

Discussion

This report describes shifts from 2014 to 2022 in the gestational age distribution of newborns towards births delivered at less than full-term. Over this 8-year period, the percentages of births delivered preterm and early-term rose by 12% and 20%, respectively, while the percentage of full-term births declined 6% and late- and post-term births declined by 28%. Despite some fluctuation in rates of preterm, full-term, and late- and post-term births during the pandemic years of 2020–2022, overall trends continued upward for preterm and downward for full-, late-, and post-term births; early-term births rose steadily throughout the entire study period. Similar trends for each gestational age category were seen across maternal age and race and Hispanic-origin groups.

Recent changes in preterm birth rates in the United States have been documented (5,6,9,10); less has been published on trends in early-term births. Analysis of early-term births by single week of gestation reveals that the largest changes occurred among births at 37 weeks, up 42% from 2014 to 2022. Births at 38 weeks also rose, but to a lesser degree (8%). Full-term births at 39 weeks were essentially unchanged from 2014 to 2022, but births at 40, 41, and 42 and later weeks declined by 17%, 28%, and 37%, respectively.

Figure 4. Percentage of singleton births, by single week of gestation: United States, 2014 and 2022



Although infants born preterm are at highest risk of morbidity and mortality, early-term birth is associated with poorer outcomes compared with full-term birth, and differences in outcomes are seen across the single-week full-term spectrum (11–13). According to the American College of Obstetricians and Gynecologists, the neonatal risks of preterm and early-term birth are well-established (14). In 2021, infant mortality rates declined by more than one-third each successive week of gestational ages 37–39 weeks (from 4.03 per 1,000 to 2.55 to 1.64) (15). Increases in births delivered preterm and early term were observed for all maternal age groups from 2014 to 2022. Although the largest changes were seen for mothers age 30 and older, the percent change for births delivered at less than full term ranged only from 15% (for the youngest mothers) to 20% (for the oldest mothers).

Increases in preterm and early-term birth were also seen for each of the race and Hispanic-origin groups studied from 2014 to 2022, with some variation in the magnitude of change; the percentage of births at less than full term rose 14% among Hispanic mothers compared with increases of 18%–19% among births to Black and White mothers. It is important to note, however, that the percentage of births delivered at less than full

term was higher for Black mothers compared with White and Hispanic mothers throughout the study period. For example, in 2022, this rate was 45.05% for Black mothers compared with 34.99% for White mothers and 38.67% for Hispanic mothers.

Limitations

Gestational age may be misreported in birth certificate data. Studies conducted from 2009 to 2013 in three vital records jurisdictions (two states and New York City) found levels of agreement between hospital records and birth certificate data on obstetric estimate of gestation within 2 weeks to be high (90.0% or more) in each state; levels of exact agreement ranged from moderate (60.0%–74.9%), to substantial (75.0%–89.9%), to high across the three jurisdictions (16,17).

This report did not take into account changes over the study period in medical or obstetric indications for delivery, which may have influenced the observed increase in births occurring at less than full term. While delivery at 39 completed weeks or later is considered optimal given reduced morbidity and mortality compared with delivery at earlier ages, deferring delivery to the 39th week is not recommended if there is a medical or obstetric indication for earlier delivery (14).

Summary

Gestational age is a strong predictor of short- and long-term morbidity and early mortality. Births delivered preterm are at the greatest risk of adverse outcomes, but risk is also elevated for early-term compared with full-term births (4,11–14). This report demonstrates a shift from 2014 through 2022 across gestational age categories, with the largest changes occurring among early-term births—particularly those delivered at 37 weeks—and among late- and post-term births. Similar shifts were observed across the maternal age and race and Hispanic-origin groups studied.

References

1. Martin JA, Hamilton BE, Osterman MJK, Curtin SC, Mathews TJ. Births: Final data for 2013. National Vital Statistics Reports; vol 64 no 1. Hyattsville, MD: National Center for Health Statistics. 2015.
2. Martin JA, Hamilton BE, Sutton PD, Ventura SJ, Menacker F, Kirmeyer S, Mathews TJ. Births: Final data for 2006. National Vital Statistics Reports; vol 57 no 7. Hyattsville, MD: National Center for Health Statistics. 2009.
3. Raju TNK, Higgins RD, Stark AR, Leveno KJ. Optimizing care and outcome for late-preterm (near-term) infants: A summary of the workshop sponsored by the National Institute of Child Health and Human Development. *Pediatrics* 118(3):1207–14. 2006. DOI: <https://doi.org/10.1542/peds.2006-0018>.
4. Spong CY, Mercer BM, D'Alton M, Kilpatrick S, Blackwell S, Saade G. Timing of indicated late-preterm and early-term birth. *Obstet Gynecol* 118(2 Pt 1):323–33. 2011. DOI: <https://www.doi.org/10.1097/AOG.0b013e3182255999>.
5. Osterman MJK, Hamilton BE, Martin JA, Driscoll AK, Valenzuela CP. Births: Final data for 2021. National Vital Statistics Reports; vol 72, no 1. Hyattsville, MD: National Center for Health Statistics. 2023. DOI: <https://dx.doi.org/10.15620/cdc:122047>.
6. Martin JA, Hamilton BE, Osterman MJK. Births in the United States, 2022. NCHS Data Brief, no 477. Hyattsville, MD: National Center for Health Statistics. 2023. DOI: <https://dx.doi.org/10.15620/cdc:131354>.
7. National Center for Health Statistics. User guide to the 2021 natality public use file. 2022. Available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Dataset_Documentation/DVS/natality/UserGuide2021.pdf.
8. National Cancer Institute. Joinpoint Regression Program (Version 4.9.0.0) [computer software]. 2021.
9. Martin JA, Osterman MJK. Describing the increase in preterm births in the United States, 2014–2016. NCHS Data Brief, no 312. Hyattsville, MD: National Center for Health Statistics. 2018. Available from: <https://www.cdc.gov/nchs/products/databriefs/db312.htm>.
10. Driscoll AK, Osterman MJK, Hamilton BE, Valenzuela CP, Martin JA. Quarterly provisional estimates for selected birth indicators, Quarter 1, 2021–Quarter 2, 2023. National Center for Health Statistics. National Vital Statistics System, Vital Statistics Rapid Release Program. 2023. Available from: <https://www.cdc.gov/nchs/nvss/vsrr/natality-dashboard.htm>.
11. Clark SL, Miller DD, Belfort MA, Dildy GA, Frye DK, Meyers JA. Neonatal and maternal outcomes associated with elective term delivery. *Am J Obstet Gynecol* 200(2):156.e1–4. 2009.
12. Tita ATN, Landon MB, Spong CY, Lai Y, Leveno KJ, Varner MW, et al. Timing of elective repeat cesarean delivery at term and neonatal outcomes. *N Engl J Med* 360(2):111–20. 2009. DOI: <https://www.doi.org/10.1056/NEJMoa0803267>.
13. Tita ATN, Jablonski KA, Bailit JL, Grobman WA, Wapner RJ, Reddy UM, et al. Neonatal outcomes of elective early-term births after demonstrated fetal lung maturity. *Am J Obstet Gynecol* 219(3):296.e1–8. 2018. DOI: <https://www.doi.org/10.1016/j.ajog.2018.05.011>.
14. American College of Obstetricians and Gynecologists' Committee on Obstetric Practice, Society for Maternal-Fetal Medicine. Medically indicated late-preterm and early-term deliveries: ACOG Committee Opinion, no 831. *Obstet Gynecol* 138(1):e35–9. 2021. DOI: <https://www.doi.org/10.1097/AOG.0000000000004447>.
15. National Center for Health Statistics. Vital statistics online data portal. 2021 period linked birth–infant death data files. Available from: https://www.cdc.gov/nchs/data_access/VitalStatsOnline.htm.
16. Martin JA, Wilson EC, Osterman MJK, Saadi EW, Sutton SR, Hamilton BE. Assessing the quality of medical and health data from the 2003 birth certificate revision: Results from two states. National Vital Statistics Reports; vol 62 no 2. Hyattsville, MD: National Center for Health Statistics. 2013.
17. Gregory ECW, Martin JA, Argov EL, Osterman MJK. Assessing the quality of medical and health data from the 2003 birth certificate revision: Results from New York City. National Vital Statistics Reports; vol 68 no 8. Hyattsville, MD: National Center for Health Statistics. 2019.

List of Detailed Tables

- | | |
|---|----|
| 1. Number and percentage of singleton births, by gestational age and race and Hispanic origin of mother: United States, 2014–2022. | 8 |
| 2. Distribution of singleton births, by gestational age and age of mother: United States, 2014–2022 | 10 |

Table 1. Number and percentage of singleton births, by gestational age and race and Hispanic origin of mother: United States, 2014–2022

Race and Hispanic origin and year	All births ¹ (number)	Preterm			Term		Late and post-term (41 or more weeks)
		Total (less than 37 weeks)	Early (less than 34 weeks)	Late (34–36 weeks)	Early (37–38 weeks)	Full (39–40 weeks)	
All races and origins		Percent					
2022.	3,547,741	8.67	2.16	6.51	29.07	57.11	5.15
2021.	3,544,292	8.76	2.20	6.56	28.53	57.71	5.01
2020.	3,495,915	8.42	2.11	6.30	27.46	58.83	5.29
2019.	3,621,616	8.47	2.14	6.32	26.99	58.92	5.62
2018.	3,662,203	8.24	2.12	6.12	26.18	59.17	6.41
2017.	3,720,586	8.13	2.12	6.02	25.59	59.47	6.81
2016.	3,806,807	8.02	2.10	5.92	25.07	59.93	6.97
2015.	3,838,382	7.82	2.09	5.73	24.56	60.47	7.15
2014.	3,845,046	7.74	2.07	5.67	24.31	60.76	7.20
		Percent change					
2019–2020. ....	...	-1	-1	†‡	2	‡	-6
2020–2021. ....	...	4	4	4	4	-2	-5
2021–2022. ....	...	-1	-2	-1	2	-1	3
2014–2022. ....	...	12	4	15	20	-6	-28
Black, non-Hispanic ²		Percent					
2022.	489,400	12.34	3.97	8.37	32.71	50.90	4.05
2021.	496,049	12.51	4.04	8.47	32.28	51.35	3.86
2020.	507,449	12.18	3.94	8.24	31.12	52.58	4.12
2019.	524,774	12.12	3.99	8.13	30.33	53.08	4.46
2018.	528,503	11.92	4.00	7.92	29.48	53.50	5.10
2017.	536,643	11.73	3.94	7.80	28.71	54.09	5.47
2016.	535,252	11.63	4.01	7.62	28.25	54.56	5.56
2015.	564,804	11.32	3.96	7.36	27.38	55.50	5.80
2014.	564,325	11.12	3.88	7.24	26.93	56.08	5.87
		Percent change					
2019–2020. ....	...	†§	†-1	1	3	-1	-8
2020–2021. ....	...	3	3	3	4	-2	-6
2021–2022. ....	...	-1	†-2	†-1	1	-1	5
2014–2022. ....	...	11	2	16	21	-9	-31
White, non-Hispanic ²		Percent					
2022.	1,778,229	7.64	1.69	5.96	27.34	59.19	5.83
2021.	1,823,277	7.69	1.71	5.98	26.69	59.89	5.73
2020.	1,780,710	7.36	1.63	5.72	25.52	61.07	6.05
2019.	1,849,136	7.44	1.66	5.78	25.11	61.07	6.38
2018.	1,886,312	7.21	1.64	5.57	24.20	61.27	7.33
2017.	1,918,410	7.13	1.65	5.48	23.61	61.47	7.80
2016.	1,979,051	7.07	1.65	5.43	23.11	61.82	8.00
2015.	2,049,655	6.91	1.64	5.27	22.67	62.28	8.14
2014.	2,066,324	6.90	1.64	5.26	22.48	62.48	8.14
		Percent change					
2019–2020. ....	...	-1	-2	-1	2	†0	-5
2020–2021. ....	...	4	5	5	5	-2	-5
2021–2022. ....	...	-1	†-1	†‡	2	-1	2
2014–2022. ....	...	11	3	13	22	-5	-28

Table 1. Number and percentage of singleton births, by gestational age and race and Hispanic origin of mother: United States, 2014–2022—Con.

Race and Hispanic origin and year	All births ¹ (number)	Preterm			Term		Late and post-term (41 or more weeks)
		Total (less than 37 weeks)	Early (less than 34 weeks)	Late (34–36 weeks)	Early (37–38 weeks)	Full (39–40 weeks)	
Hispanic ³		Percent					
2022.....	913,437	8.72	2.13	6.59	29.94	56.63	4.71
2021.....	863,477	8.88	2.17	6.71	29.69	57.00	4.42
2020.....	845,176	8.54	2.07	6.47	28.80	57.99	4.68
2019.....	863,731	8.60	2.11	6.48	28.48	57.95	4.97
2018.....	863,610	8.39	2.07	6.32	27.84	58.25	5.53
2017.....	875,663	8.27	2.08	6.19	27.36	58.57	5.80
2016.....	894,619	8.11	2.05	6.06	26.78	59.28	5.82
2015.....	900,251	7.83	2.02	5.82	26.30	59.81	6.06
2014.....	890,808	7.72	2.02	5.70	26.14	59.96	6.17
		Percent change					
2019–2020.....	...	†-1	-2	†‡	1	†§	-6
2020–2021.....	...	4	5	4	3	-2	-6
2021–2022.....	...	2	-2	-2	1	-1	7
2014–2022.....	...	13	5	16	15	-6	-24

... Category not applicable.

† Not significant at $p < 0.05$.

‡ -0.5 to 0.0.

§ 0.5 or less.

¹Excludes unknown gestational age.²Race groups are single race (defined as only one race reported on the birth certificate). Race and Hispanic origin are reported separately on birth certificates. Race categories are consistent with 1997 Office of Management and Budget standards.³People of Hispanic origin may be of any race.

SOURCE: National Center for Health Statistics, National Vital Statistics System, natality data file.

Table 2. Distribution of singleton births, by gestational age and age of mother: United States, 2014–2022

Gestational age and year	Total	Younger than 20	20–29	30–39	40 or older	Gestational age and year	Total	Younger than 20	20–29	30–39	40 or older
Preterm						Early term					
Percent						Percent					
2022.....	8.67	9.66	8.23	8.69	12.52	2022.....	29.07	29.25	28.68	29.06	33.71
2021.....	8.76	9.72	8.33	8.77	12.79	2021.....	28.53	28.57	28.28	28.39	33.30
2020.....	8.42	9.33	8.05	8.42	12.12	2020.....	27.46	27.45	27.20	27.34	32.52
2019.....	8.47	9.37	8.13	8.46	12.10	2019.....	26.99	27.19	26.76	26.86	31.82
2018.....	8.24	9.37	7.92	8.21	11.72	2018.....	26.18	26.43	25.99	25.99	31.00
2017.....	8.13	9.24	7.83	8.09	11.70	2017.....	25.59	26.01	25.39	25.45	29.90
2016.....	8.02	9.36	7.72	7.96	11.53	2016.....	25.07	25.37	24.91	24.91	29.30
2015.....	7.82	8.95	7.55	7.76	11.03	2015.....	24.56	25.16	24.39	24.40	28.39
2014.....	7.74	8.85	7.49	7.65	10.82	2014.....	24.31	24.87	24.14	24.19	27.68
Percent change						Percent change					
2019–2020....	-1	†‡	-1	†‡	†§	2019–2020.....	2	†1	2	2	2
2020–2021....	4	4	3	4	6	2020–2021.....	4	4	4	4	2
2021–2022....	-1	†-1	-1	-1	-2	2021–2022.....	2	2	1	2	1
2014–2022....	12	9	10	14	16	2014–2022.....	20	18	19	20	22
Early preterm						Full term					
Percent						Percent					
2022.....	2.16	2.71	2.04	2.14	3.23	2022.....	57.11	55.89	57.72	57.09	51.47
2021.....	2.20	2.69	2.08	2.18	3.34	2021.....	57.71	56.68	58.25	57.76	51.48
2020.....	2.11	2.63	2.02	2.09	3.07	2020.....	58.83	57.62	59.37	58.86	52.87
2019.....	2.14	2.65	2.03	2.12	3.28	2019.....	58.92	57.44	59.40	58.99	53.26
2018.....	2.12	2.65	2.03	2.09	3.10	2018.....	59.17	57.22	59.56	59.34	53.95
2017.....	2.12	2.69	2.01	2.09	3.21	2017.....	59.47	57.49	59.83	59.65	54.72
2016.....	2.10	2.71	2.00	2.06	3.21	2016.....	59.93	57.85	60.26	60.17	55.01
2015.....	2.09	2.59	2.01	2.05	3.13	2015.....	60.47	58.32	60.76	60.75	56.07
2014.....	2.07	2.57	1.98	2.02	3.14	2014.....	60.76	58.57	61.01	61.08	56.67
Percent change						Percent change					
2019–2020....	-1	†-1	†‡	-1	-6	2019–2020.....	‡	†§	†‡	‡	-1
2020–2021....	4	†2	3	4	9	2020–2021.....	-2	-2	-2	-2	-3
2021–2022....	-2	†1	-2	-2	†-3	2021–2022.....	-1	-1	-1	-1	†‡
2014–2022....	4	5	3	6	†3	2014–2022.....	-6	-5	-5	-7	-9
Late preterm						Late and post-term					
Percent						Percent					
2022.....	6.51	6.95	6.19	6.54	9.28	2022.....	5.15	5.21	5.37	5.17	2.31
2021.....	6.56	7.03	6.25	6.59	9.44	2021.....	5.01	5.03	5.14	5.08	2.44
2020.....	6.30	6.70	6.04	6.33	9.04	2020.....	5.29	5.60	5.38	5.39	2.49
2019.....	6.32	6.71	6.09	6.34	8.82	2019.....	5.62	6.00	5.72	5.69	2.82
2018.....	6.12	6.71	5.89	6.13	8.61	2018.....	6.41	6.99	6.53	6.45	3.34
2017.....	6.02	6.56	5.82	6.01	8.49	2017.....	6.81	7.26	6.96	6.81	3.68
2016.....	5.92	6.65	5.72	5.90	8.32	2016.....	6.97	7.41	7.11	6.96	4.15
2015.....	5.73	6.36	5.54	5.71	7.90	2015.....	7.15	7.57	7.31	7.09	4.52
2014.....	5.67	6.28	5.51	5.63	7.68	2014.....	7.20	7.71	7.36	7.08	4.82
Percent change						Percent change					
2019–2020....	†‡	†‡	-1	†‡	2	2019–2020.....	-6	-7	-6	-5	-12
2020–2021....	4	5	3	4	4	2020–2021.....	-5	-10	-4	-6	†-2
2021–2022....	-1	†-1	-1	-1	†-2	2021–2022.....	3	4	4	2	-5
2014–2022....	15	11	12	16	21	2014–2022.....	-28	-32	-27	-27	-52

† Not significant at $p < 0.05$.

‡ -0.5 to 0.0.

§ 0.5 or less.

NOTES: Singleton births only. Preterm is less than 37 weeks of gestation, early term is 37–38 weeks, full term is 39–40 weeks, and late and post-term is 41 weeks and later.

SOURCE: National Center for Health Statistics, National Vital Statistics System, natality data file.

U.S. DEPARTMENT OF
HEALTH & HUMAN SERVICES

Centers for Disease Control and Prevention
National Center for Health Statistics
3311 Toledo Road, Room 4551
Hyattsville, MD 20782–2064

FIRST CLASS MAIL
POSTAGE & FEES PAID
CDC/NCHS
PERMIT NO. G-284

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300

For more NCHS NVSRs, visit:
<https://www.cdc.gov/nchs/products/nvsr.htm>.



National Vital Statistics Reports, Vol. 73, No. 1, January 31, 2024

Contents

Abstract 1
Introduction 1
Methods 1
Results 2
 Preterm births (less than 37 weeks of gestation) 2
 Early-term births (37–38 weeks of gestation) 4
 Full-term births (39–40 weeks of gestation) 4
 Late- and post-term births (41–42 and later weeks of gestation) 5
 Early-, full-, and late-term births by single week of gestation 5
Discussion 5
 Limitations 6
 Summary 7
References 7
List of Detailed Tables 7

Acknowledgments

This report was prepared in the Division of Vital Statistics under the general direction of Acting Director Paul D. Sutton and Robert N. Anderson, Chief, Statistical Analysis and Surveillance Branch. The authors would like to thank Acting Deputy Director Isabelle Horon for her helpful comments.

Suggested citation

Martin JA, Osterman MJK. Shifts in the distribution of births by gestational age: United States, 2014–2022. National Vital Statistics Reports; vol 73 no 1. Hyattsville, MD: National Center for Health Statistics. 2024. DOI: <https://dx.doi.org/10.15620/cdc:135610>.

Copyright information

All material appearing in this report is in the public domain and may be reproduced or copied without permission; citation as to source, however, is appreciated.

National Center for Health Statistics

Brian C. Moyer, Ph.D., *Director*
Amy M. Branum, Ph.D., *Associate Director for Science*

Division of Vital Statistics

Paul D. Sutton, Ph.D., *Acting Director*
Andrés A. Berruti, Ph.D., M.A., *Associate Director for Science*