National Vital Statistics Reports

NVSS National Vital Statistics System

Volume 74, Number 9 June 13, 2025

Trends in Mean Age of Mothers: United States, 2016–2023

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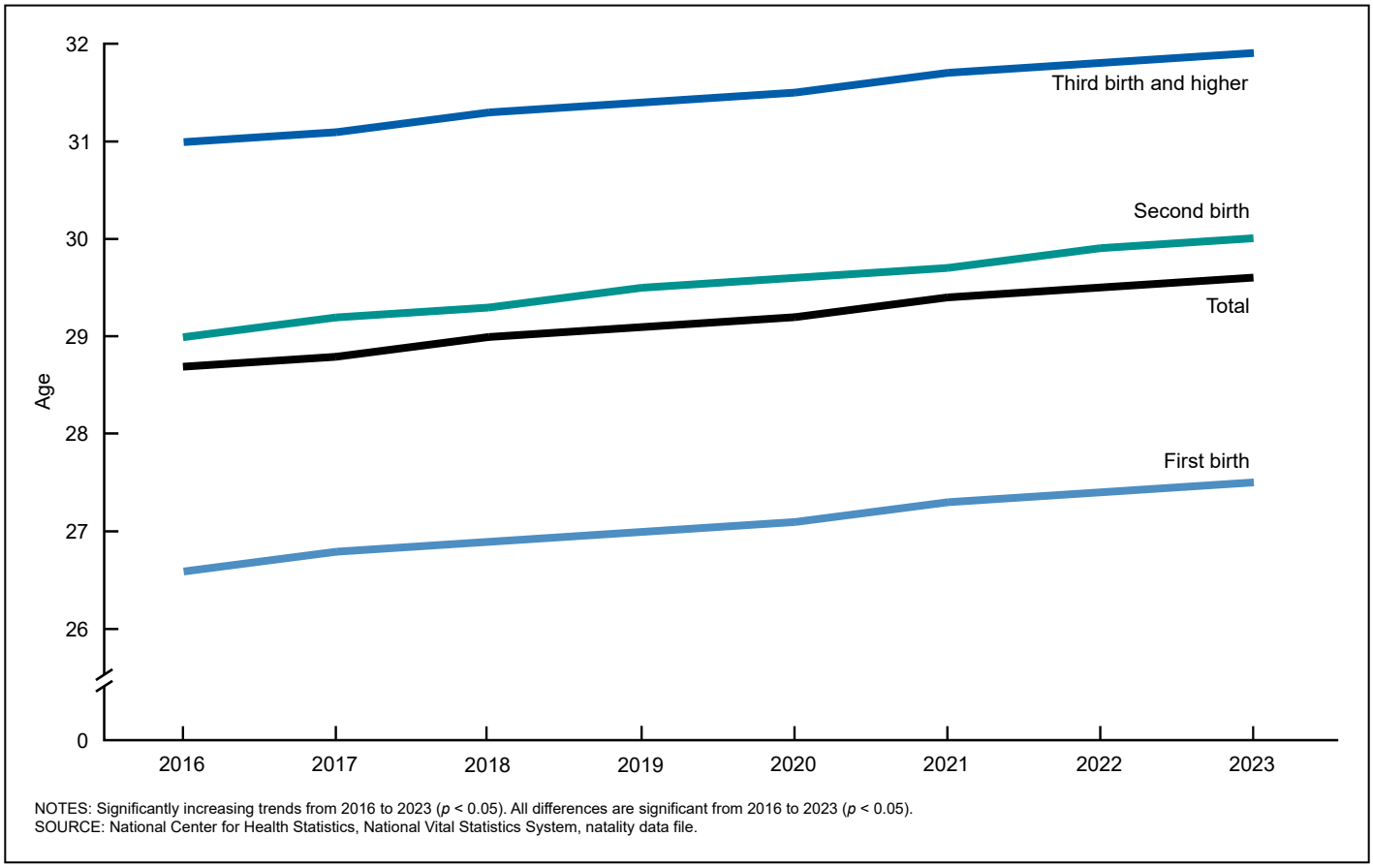
Abstract

Objectives—This report presents recent trends in the mean (average) age of mothers when they gave birth in the United States from 2016 to 2023. It updates previous analyses by examining trends in mean maternal age by birth order and presents trends and differences in mean age at first birth across race and Hispanic origin and urbanicity.

Methods—Data are from the National Vital Statistics System, comprising all birth records in the United States for 2016–2023. Mean maternal age was calculated for first, second, and third and higher-order births (the number of live births born to a

Figure 1. Mean age, by birth order: United States, 2016–2023



NOTES: Significantly increasing trends from 2016 to 2023 ($p < 0.05$). All differences are significant from 2016 to 2023 ($p < 0.05$).
SOURCE: National Center for Health Statistics, National Vital Statistics System, natality data file.

woman during her lifetime). Trends over time and differences by mother's race and Hispanic origin and urbanicity are described.

Results—The mean age of mothers at first birth increased 0.9 year, from 26.6 in 2016 to 27.5 in 2023. Similar increases were observed for higher-order births, with mean age at birth rising by 1.0 year for second births and 0.9 year for third and higher-order births. All racial and ethnic groups saw an increase in mean age at first birth of 0.4–1.4 years. Mean maternal age at first birth rose across all levels of urbanicity, from large metropolitan counties to rural counties, by 0.7–0.9 year. In 2023, mothers in large metropolitan counties had the highest mean age at first birth (28.5), while those in noncore counties had the lowest (24.8).

Keywords: birth order • maternal age • maternal race and Hispanic origin • urbanicity • National Vital Statistics System

Introduction

Over the past several decades, the age at which women have their first child has been rising in the United States. With the exception of 2006, the mean age of mothers at birth has either increased or remained stable every year since 1970 (1,2). This long-term shift reflects changes in societal, educational, and economic factors influencing when women begin childbearing (3,4). Monitoring trends in maternal age at birth is important because maternal age can impact the total number of births and population growth and is associated with birth outcomes for both mothers and infants. For example, higher maternal age is linked to smaller family size on average and may carry different health risks and benefits compared with younger maternal age (5,6). Estimates on mean maternal age are reported annually by the Centers for Disease Control and Prevention's (CDC) National Center for Health Statistics, providing key insights into these demographic shifts (7).

A previous analysis reported that the mean age of mothers increased from 2000 to 2014 (2). This report updates and extends those findings by examining trends from 2016 to 2023, describing changes in the mean age of mothers by birth order (first, second, and third and higher-order births born to a woman during her lifetime) and race and Hispanic origin. Differences by urbanicity of the mother's residence are also explored.

Methods

Data on the mean age of mothers shown in this report are from the National Vital Statistics System (NVSS) and are based on 100% of births registered in the United States from 2016 to 2023. Detailed information on the NVSS birth data sets can be found in the "User Guide to the Natality Public Use File" (https://www.cdc.gov/nchs/data_access/vitalstatsonline.htm) and on the CDC WONDER platform (https://wonder.cdc.gov/natality.html).

The mean age is the arithmetic average of the age of mothers at the time of birth and is computed directly from the frequency of births by age of mother. First birth is the first child born alive to the mother. Second birth is the second child born alive to the mother. Third and higher-order births are the third or higher-order child born alive to the mother during her lifetime.

Race and Hispanic origin are self-reported independently on birth certificates by the mother or family members at the time of birth. People of Hispanic origin may be of any race. People of non-Hispanic origin are classified in this report by their race. Race categories are consistent with 1997 Office of Management and Budget standards (8). This report contains data on the following race and Hispanic-origin groups: American Indian and Alaska Native, non-Hispanic single race (subsequently, American Indian and Alaska Native); Asian, non-Hispanic single race (subsequently, Asian), Black or African American, non-Hispanic single race (subsequently, Black), Native Hawaiian or Other Pacific Islander, non-Hispanic single race (subsequently, Native Hawaiian or Other Pacific Islander), White, non-Hispanic single race (subsequently, White), and Hispanic.

This report begins with data for the year 2016 because 2016 is the first year for which all states reported race of the mother based on the 2003 U.S. Standard Certificate of Live Birth (9). Among other differences, the change to the 2003 revision of the birth certificate allows for the reporting of data for Asian and Native Hawaiian or Other Pacific Islander mothers separately; data for previous years were only available for these two groups combined (Asian or Pacific Islander).

Metropolitan and nonmetropolitan areas, based on the county of residence of the mother, were classified using the 2013 National Center for Health Statistics Urban–Rural Classification Scheme for Counties (10). Large metropolitan areas, or metropolitan statistical areas (MSAs) with populations of 1 million people or more, include large central metropolitan and large fringe metropolitan areas. Large central metropolitan areas refer to counties that include the area's principal city. Large fringe metropolitan areas refer to the surrounding counties of an MSA that were not classified as large central metropolitan counties. Medium and small metropolitan counties are classified as MSAs with 250,000 to 999,999 people and less than 250,000 people, respectively. Nonmetropolitan areas include micropolitan and noncore counties (or nonmetropolitan counties that are not classified as micropolitan).

All references in the text to changes (pairwise comparisons) in mean age are statistically significant at an alpha level of 0.05 level based on a two-tailed *z* test. References to trends in mean age by live-birth order from 2016 to 2023 were evaluated using the Joinpoint Regression Program (11). A maximum of one joinpoint was allowed during the 2016–2023 period, which is the default setting. The default settings were also selected for the other parameters of the analysis.

Results

Changes in mean age of mothers by birth order

- The mean age at birth for all mothers increased by 0.9 year, from 28.7 in 2016 to 29.6 in 2023 (Table 1, Figure 1).
- Mean age at first birth increased over time and rose 0.9 year from 26.6 in 2016 to 27.5 in 2023.
- Similar upward trends in the mean age of mothers were observed for second and third and higher-order births.

Mean ages increased from 2016 to 2023 by 1.0 year for second births and 0.9 year for third and higher-order births.

Changes in the percentage of first births by maternal age

- The percentage of first births increased for mothers age 30 and older, by 12.6% for mothers ages 30–34 (from 22.3% to 25.1%) and 25% for mothers age 35 and older (from 10.0% to 12.5%) from 2016 to 2023 (Table 2, Figure 2).
- No change was seen in the percentage of births to mothers ages 25–29 from 2016 (28.5%) to 2023 (28.5%).
- The percentage of first births to mothers younger than 25 declined by 26% for mothers younger than 20 (from 11.8% to 8.7%) and by 9% for mothers ages 20–24 (from 27.5% to 25.1%).

Changes in mean age of mothers at first birth by race and Hispanic origin

- Asian mothers had the largest increase in mean age at first birth for 2016 and 2023 (1.4 years), and Native Hawaiian or Other Pacific Islander mothers had the lowest (0.4 year) (Table 3, Figure 3).
- Asian mothers had the highest mean age at first birth in 2016 (30.1) and 2023 (31.5).
- American Indian and Alaska Native mothers had the lowest mean age at first birth in 2016 (23.2) and 2023 (24.2).

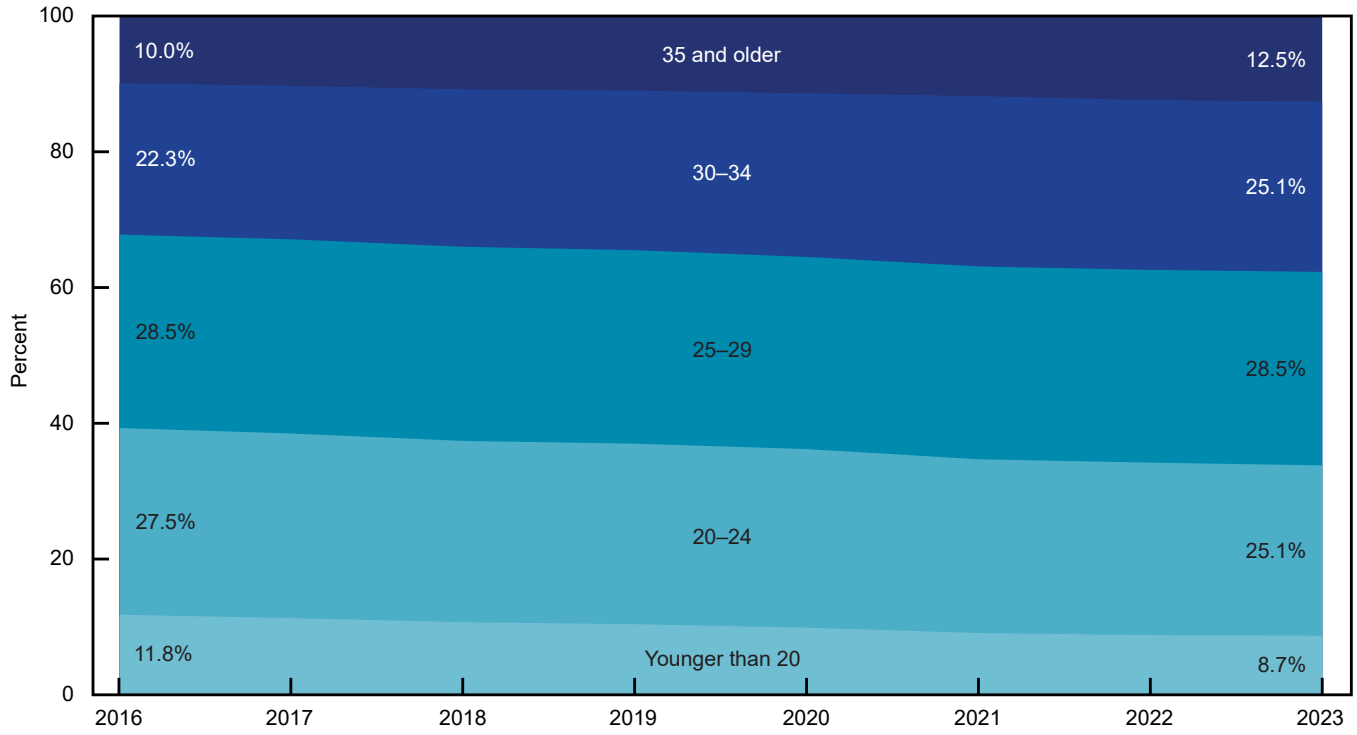
Changes in mean age of mothers at first birth by urbanicity

- From 2016 to 2023, mean age at first birth increased 0.9 year for large central, large fringe, and medium metropolitan areas, and 0.7 year for small metropolitan and nonmetropolitan (micropolitan and noncore) areas (Table 3).
- Mothers living in large fringe or large central metropolitan areas had the highest mean age at first birth (27.6 in 2016 and 28.5 in 2023).
- Mothers living in noncore areas had the lowest mean age at first birth (24.1 in 2016 and 24.8 in 2023).

Discussion

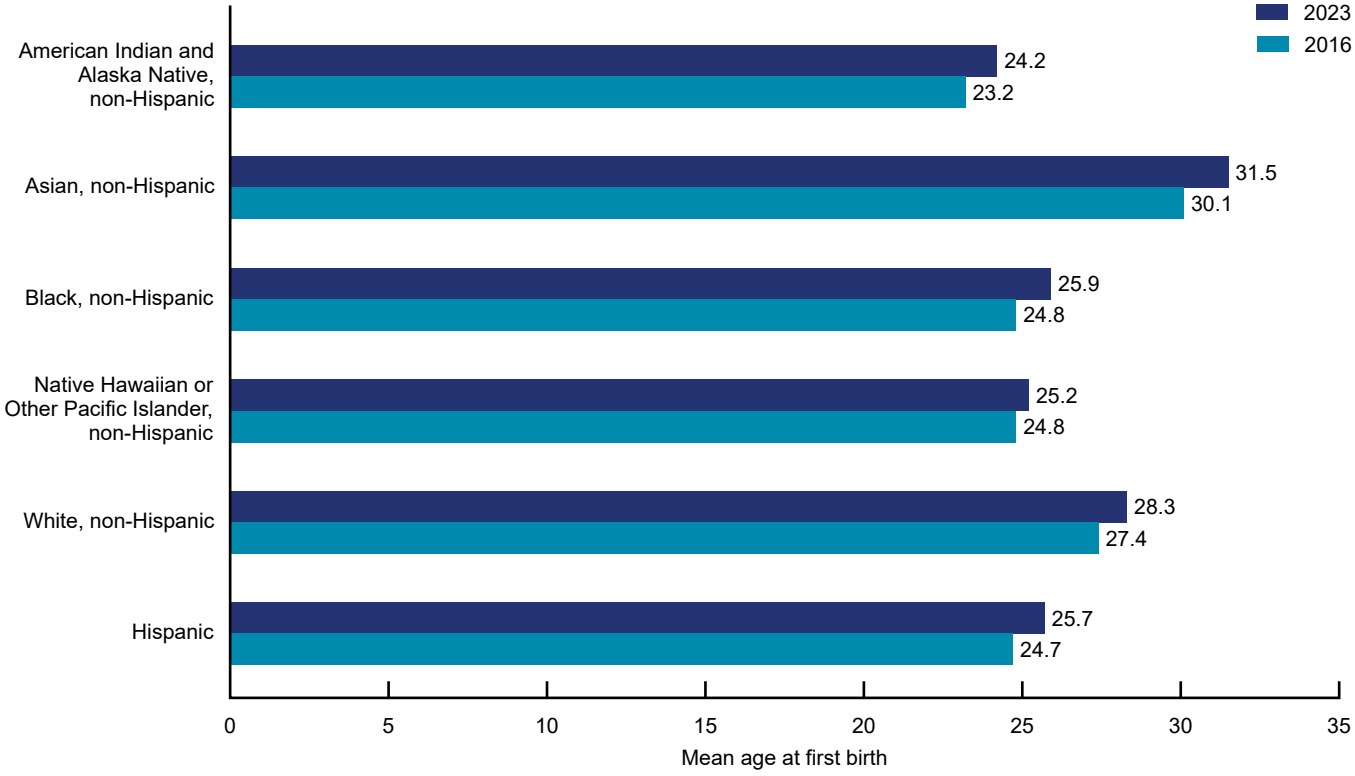
From 2016 to 2023, the mean age for first-time mothers rose from 26.6 to 27.5, an increase of nearly 1 year over a 7-year span. Similar upward trends were observed for subsequent births: The average age for second births increased by 1.0 year, and for third and higher-order births by 0.9 year. The findings of this analysis suggest that U.S. women may be continuing to delay motherhood, as evidenced by rising mean ages at

Figure 2. Percentage of first births, by age of mother: United States, 2016–2023



NOTES: Significantly decreasing trend for females younger than age 25 from 2016 to 2023 and significantly increasing trend for women 30 and older from 2016 to 2023 ($p < 0.05$). No statistically significant trend for women ages 25–29 was seen from 2016 to 2023 ($p < 0.05$). All differences are significant from 2016 to 2023 ($p < 0.05$), except for women ages 25–29 between 2016 and 2023 and between women ages 20–24 and 30–34 for 2023.
SOURCE: National Center for Health Statistics, National Vital Statistics System, natality data file.

Figure 3. Mean age at first birth, by race and Hispanic origin of mother: United States, 2016 and 2023



NOTE: All differences are significant from 2016 to 2023 ($p < 0.05$).
SOURCE: National Center for Health Statistics, National Vital Statistics System, natality data file.

childbirth across birth order, race and Hispanic-origin groups, and geographic levels.

Motherhood is increasingly delayed across most race and Hispanic-origin groups. From 2016 to 2023, mean age at first birth increased for American Indian and Alaska Native, Asian, Black, White, and Hispanic mothers. An earlier study also found that Asian mothers tend to have the highest mean maternal age at first birth, while American Indian and Alaska Native mothers have the lowest (2).

This report also found that the mean age at first birth rose for each level of urbanicity from large metropolitan areas to rural regions, by 0.7–0.9 year. By 2023, the highest mean age at first birth was in large central and large fringe metropolitan areas at 28.5, while the lowest was in noncore areas at 24.8.

A previous National Vital Statistics Report found that from 1970 to 2000, the mean age of mothers in the United States rose by 2.6 years, with the most significant increase occurring among first-time mothers (from 21.4 in 1970 to 24.9 in 2000) (1). A later study reported that between 2000 and 2014, the mean age at first birth increased by 1.4 years, with the largest changes occurring after 2009 (2). These studies suggest that the rise in maternal age from 2016 to 2023 seen in this analysis is a continuation of these trends. The increase in the mean age of mothers from 2016 to 2023 is the result of declines in first births to mothers younger than 25 and increases in first births to mothers age 30 and older (12). The ongoing rise in the age of mothers at first birth reflects changes in childbearing for U.S. families (13).

Conclusion

The mean age of mothers at childbirth in the United States increased from 2016 through 2023, continuing the long-term trend toward delayed childbearing. This analysis demonstrates that the shift toward older motherhood occurred across birth orders, among nearly all racial and ethnic groups, and in both urban and rural areas. By 2023, first-time mothers were almost 1 year older on average than they were in 2016.

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List of Detailed Tables

Table 1. Mean age, by birth order: United States, 2016–2023

[Mean age at birth is the arithmetic average of the age of mothers at time of birth, computed directly from the frequency of births by age of mother and live-birth order. Live-birth order refers to number of children born alive to mother]

Year	Total	First birth	Second birth	Third birth and higher
2023	29.6	27.5	30.0	31.9
2022	29.5	27.4	29.9	31.8
2021	29.4	27.3	29.7	31.7
2020	29.2	27.1	29.6	31.5
2019	29.1	27.0	29.5	31.4
2018	29.0	26.9	29.3	31.3
2017	28.8	26.8	29.2	31.1
2016	28.7	26.6	29.0	31.0

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

Table 2. Percentage of first births, by age of mother: United States, 2016–2023

Year	Younger than 20	20–24	25–29	30–34	35 and older
2023	8.7	25.1	28.5	25.1	12.5
2022	8.8	25.4	28.4	25.0	12.3
2021	9.1	25.6	28.4	25.1	11.9
2020	9.9	26.3	28.3	24.1	11.4
2019	10.4	26.6	28.5	23.5	11.0
2018	10.7	26.7	28.6	23.2	10.8
2017	11.3	27.2	28.6	22.6	10.4
2016	11.8	27.5	28.5	22.3	10.0

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

Table 3. Mean age at first birth, by race and Hispanic origin of mother and urbanicity level of mother's county of residence: United States, 2016 and 2023, and absolute change in means: United States, 2016 to 2023

[Mean age at first birth is the arithmetic average of the age of mothers at the time of birth, computed directly from the frequency of first births by age of mother]

Characteristic	2016	2023	Absolute change 2016 to 2023
Race and Hispanic origin[1]			
Non-Hispanic, single race[2]:			
American Indian and Alaska Native	23.2	24.2	1.0
Asian	30.1	31.5	1.4
Black	24.8	25.9	1.1
Native Hawaiian or Other Pacific Islander	24.8	25.2	0.4
White	27.4	28.3	0.9
Hispanic[3]	24.7	25.7	1.0
Urbanicity level[4]			
Noncore (nonmetropolitan)	24.1	24.8	0.7
Micropolitan (nonmetropolitan)	24.6	25.3	0.7
Small metropolitan	25.3	26.0	0.7
Medium metropolitan	25.9	26.8	0.9
Large fringe metropolitan	27.6	28.5	0.9
Large central metropolitan	27.6	28.5	0.9

[1]Includes births to race and origin groups not shown separately, such as Hispanic single-race Black, Hispanic single-race White, and non-Hispanic multiple-race women, as well as births with origin not stated.
[2]Race groups are single race. Race and Hispanic origin are reported separately on birth certificates. Non-Hispanic women are classified by race. Race categories are consistent with the 1997 Office of Management and Budget standards.
[3]Includes all women of Hispanic origin of any race.
[4]Urbanicity level of county of residence is based on the 2013 NCHS Urban–Rural Classification Scheme for Counties (10).

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

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National Vital Statistics Reports, Vol. 74, No. 9, June 13, 2025

Contents

Suggested citation

Brown AD, Hamilton BE, Kissin DM, Martin JA. Trends in mean age of mothers: United States, 2016–2023. Natl Vital Stat Rep. 2025 Jun;74(9):1–7. DOI: https://dx.doi.org/10.15620/cdc/174598.