



Changes in Births to New York City Residents Occurring Outside New York City, by Race and Hispanic Origin of the Mother: 2018–2019 and 2019–2020

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Abstract

Objectives—New York City was an early epicenter of the COVID-19 outbreak in the United States, with cases peaking in early April for January–December 2020. This report describes changes between 2019 and 2020 in the percentage of New York City residents giving birth outside of New York City by race and Hispanic origin of the mother, and makes comparisons with changes occurring between 2018 and 2019.

Methods—Data are based on 2018 and 2019 final and 2020 provisional birth certificate data for births to residents of New York City. Changes in the percentage of out-of-city births occurring from 2018 to 2019 and from 2019 to 2020 are computed for each month and compared.

Results—From 2019 to 2020, the percentage of births to New York City residents occurring outside of the City increased for all months from March through November, ranging from a 15% increase for September to a 70% increase for April. Out-of-city births peaked in April (10.2%) and May (10.3%) at more than one and one-half times the 2019 levels (6.0% and 6.2%, respectively). Among non-Hispanic white women, the percentage of out-of-city births was nearly two and one-half times higher in 2020 than in 2019 in April (15.6% versus 6.6%) and May (15.8% versus 6.5%). Increases were less pronounced for births to non-Hispanic black and Hispanic residents; the percentage of out-of-city births for each group increased in only two months in 2020. In contrast, few

statistically significant changes were observed between 2018 and 2019 in the percentage of out-of-city births for New York City residents overall, or residents of the three largest race and Hispanic-origin groups.

Keywords: out-of-city births • provisional data • National Vital Statistics System

Introduction

New York City (NYC or City) was an early epicenter of the COVID-19 outbreak in the United States, with the introduction of COVID-19 into NYC likely occurring during early to mid-February 2020 (1). During January–December 2020, the 7-day average of confirmed and probable COVID-19 cases peaked in early April, declined and plateaued at a low from June to October, and then began increasing again (2). Between March 1 and May 1, approximately 5% of NYC residents relocated from the City, with a higher percentage of residents leaving from the wealthiest neighborhoods compared with the rest of NYC (3). The residents from wealthier neighborhoods were more likely to be white, have higher incomes, have a college degree, and have the ability to work from home than residents of the City as a whole (3). Included in those leaving NYC were pregnant women who gave birth elsewhere. Reasons that pregnant women left NYC included concerns about the increased spread of COVID-19 in the City, the accompanying strain placed on the health care system, and a brief ban on

the presence of support persons during labor and delivery in some hospital systems (4–6). This report presents the percentages of NYC residents giving birth outside of NYC by race and Hispanic origin of the mother by month for 2020 and compares these figures with percentages for the same month in 2019. Comparisons are also made with changes occurring from 2018 to 2019.

Methods

The birth certificate data shown in this report are collected via the National Vital Statistics System. For 2020 births to NYC residents, findings are based on provisional birth certificate data, representing 99.87% of births occurring in the United States. Comparisons are made with final 2018 and 2019 births. Detailed information on reporting completeness and criteria may be found elsewhere (7–9).

Out-of-city births are defined as those that occurred to women who resided in NYC but gave birth in a different jurisdiction. Birth certificates are filed in the jurisdiction where the birth occurred, but include information collected from the mother on her place of residence (10). Births are typically shown by state of residence in National Center for Health Statistics reports; state of residence was missing for 0.01% of births occurring in the United States in 2020. Births were included in the analysis if a woman reported that her place of residence was NYC, regardless of where the birth took place.

Hispanic origin and race are reported separately on the birth certificate. Data shown by Hispanic origin include all persons of Hispanic origin of any race. Data for non-Hispanic persons are shown separately for each single-race group. Data by race are based on the revised standards issued by the Office of Management and Budget in 1997 (11). The race and Hispanic-origin groups shown are non-Hispanic, single-race white; non-Hispanic, single-race black; and Hispanic. For brevity, text references to non-Hispanic white or non-Hispanic black women omit the term “single-race.”

Changes and differences presented in this report are statistically significant at the 0.05 level based on a two-tailed z test, unless noted otherwise. For information and discussion on computing percentages and on the reliability of provisional natality data, see “Births: Provisional Data for 2016” (12).

Results

Changes in place of occurrence of NYC resident births between 2018 and 2019

Key findings, illustrated in the [Table](#) and [Figure 1](#), include:

- The percentage of all NYC residents and of the three largest race and Hispanic-origin groups giving birth outside of the City was essentially unchanged for most months in 2019 compared with the same months in 2018. The only significant changes in the percentage of out-of-city births were a 20% increase in February 2019 for all residents (5.1% to 6.1%) and for non-Hispanic black (51%, from 4.1% to 6.2%) and Hispanic (33%, from 4.5% to 6.0%) residents, a 42% increase in December 2019 for non-Hispanic black residents (5.3% to 7.5%), and a 19% decline in April

2019 for non-Hispanic white residents (8.1% to 6.6%).

Changes in place of occurrence of NYC resident births between 2019 and 2020

Key findings, illustrated in the [Table](#) and [Figures 1](#) and [2](#), include:

- The percentage of all NYC residents giving birth outside of the City was essentially unchanged between 2019 and 2020 in January and February but rose from March to November, with levels peaking in April and May. The change in the percentage of out-of-city births for December was not significant. In March, out-of-city births increased by 33% (5.8% to 7.7%), in April by 70% (6.0% to 10.2%), and in May by 66% (6.2% to 10.3%). Out-of-city births continued to rise for June through November with increases ranging from 15% to 33% ([Table](#) and [Figure 1](#)).

Table. Births to New York City residents that occurred outside of New York City, by month and race and Hispanic origin of mother: Final 2018 and 2019 and provisional 2020 data

Race and Hispanic origin and month	Number			Percent			Percent change	
	2018 ¹	2019 ¹	2020 ²	2018 ¹	2019 ¹	2020 ²	2018–2019	2019–2020
All race and Hispanic origins ³								
January	568	507	502	6.0	5.7	5.8	-5	2
February	420	475	502	5.1	6.1	6.3	†20	3
March	515	496	651	5.7	5.8	7.7	2	†33
April	547	506	824	6.4	6.0	10.2	-6	†70
May	576	545	839	6.2	6.2	10.3	0	†66
June	596	586	674	6.5	6.7	8.4	3	†25
July	604	616	668	6.4	6.7	7.9	5	†18
August	588	580	670	6.1	6.1	8.1	0	†33
September	554	579	611	6.2	6.5	7.5	5	†15
October	494	547	606	5.4	6.0	7.5	11	†25
November	512	473	533	5.7	5.5	7.3	-4	†33
December	530	566	468	5.9	6.3	6.8	7	8
Non-Hispanic, single-race white ⁴								
January	212	190	189	6.9	6.5	6.5	-6	0
February	187	175	199	7.2	6.9	7.3	-4	6
March	196	181	269	6.8	6.3	9.4	-7	†49
April	225	186	429	8.1	6.6	15.6	†-19	†136
May	206	193	461	6.7	6.5	15.8	-3	†143
June	232	239	355	7.6	7.9	12.6	4	†59
July	258	247	304	8.2	7.7	10.6	-6	†38
August	226	225	301	7.0	7.2	10.8	3	†50
September	190	207	265	6.7	7.3	10.1	9	†38
October	183	217	252	6.1	7.1	9.2	16	†30
November	166	161	205	5.7	5.8	8.4	2	†45
December	217	230	201	7.2	7.7	9.0	7	17

See footnotes at end of table.

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Table. Births to New York City residents that occurred outside of New York City, by month and race and Hispanic origin of mother: Final 2018 and 2019 and provisional 2020 data—Con.

Race and Hispanic origin and month	Number			Percent			Percent change	
	2018 ¹	2019 ¹	2020 ²	2018 ¹	2019 ¹	2020 ²	2018–2019	2019–2020
Non-Hispanic, single-race black⁴								
January	122	110	87	6.7	6.2	5.2	-7	-16
February	67	97	106	4.1	6.2	7.0	†51	13
March	99	98	125	5.6	6.2	7.8	11	26
April	123	113	127	7.7	7.1	8.3	-8	17
May	98	85	103	5.6	5.2	7.0	-7	†35
June	111	107	100	6.5	6.8	6.6	5	-3
July	115	118	120	6.6	6.6	7.6	0	15
August	108	117	117	5.8	6.6	7.7	14	17
September	126	112	110	6.9	6.7	7.1	-3	6
October	110	102	112	6.0	6.0	7.6	0	27
November	98	92	117	5.6	5.6	8.7	0	†55
December	92	127	84	5.3	7.5	6.0	†42	-20
Hispanic⁵								
January	151	116	127	5.5	4.6	5.1	-16	11
February	107	136	118	4.5	6.0	5.2	†33	-13
March	138	125	136	5.4	5.2	5.7	-4	10
April	125	121	153	4.9	5.2	6.5	6	†25
May	169	155	158	6.3	6.3	6.7	0	6
June	151	158	134	5.7	6.6	5.7	16	-14
July	141	148	142	5.2	5.6	5.6	8	0
August	158	139	161	5.6	5.1	6.5	-9	†27
September	150	153	146	5.7	5.7	6.0	0	5
October	116	125	148	4.3	5.0	6.2	16	24
November	159	135	123	6.2	5.4	5.7	-13	6
December	136	125	108	5.3	4.8	5.3	-9	10

†Significant change ($p < 0.05$).

¹Final data.

²Provisional data; based on 99.87% of births.

³Includes 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.

⁴Race 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 (10). Single-race is defined as only one race reported on the birth certificate.

⁵Includes all persons of Hispanic origin of any race.

SOURCE: National Center for Health Statistics, National Vital Statistics System, Natality.

- The percentage of non-Hispanic white NYC residents giving birth outside of the City in January and February was not significantly different for 2020 compared with 2019. In March, out-of-city births increased by 49%, from 6.3% to 9.4%. Out-of-city births increased again in April by 136% (6.6% to 15.6%) and in May by 143% (6.5% to 15.8%). Out-of-city births continued to rise from June through November, with increases ranging from 30% to 59% (Table). The change in the percentage of out-of-city births for December was not significant. Figure 2 shows changes by race and Hispanic origin for April and May, the two months with the largest increases.
- The monthly percentage of non-Hispanic black NYC residents giving birth outside of the City was generally

unchanged for all but two months for 2020 compared with 2019. Levels rose in May by 35% (from 5.2% to 7.0%) and in November by 55% (from 5.6% to 8.7%) (Table and Figure 2).

- The monthly percentage of Hispanic NYC residents giving birth outside of the City was also generally unchanged for all but two months for 2020 compared with 2019. Levels increased in April by 25% (from 5.2% to 6.5%) and in August by 27% (from 5.1% to 6.5%) (Table and Figure 2).

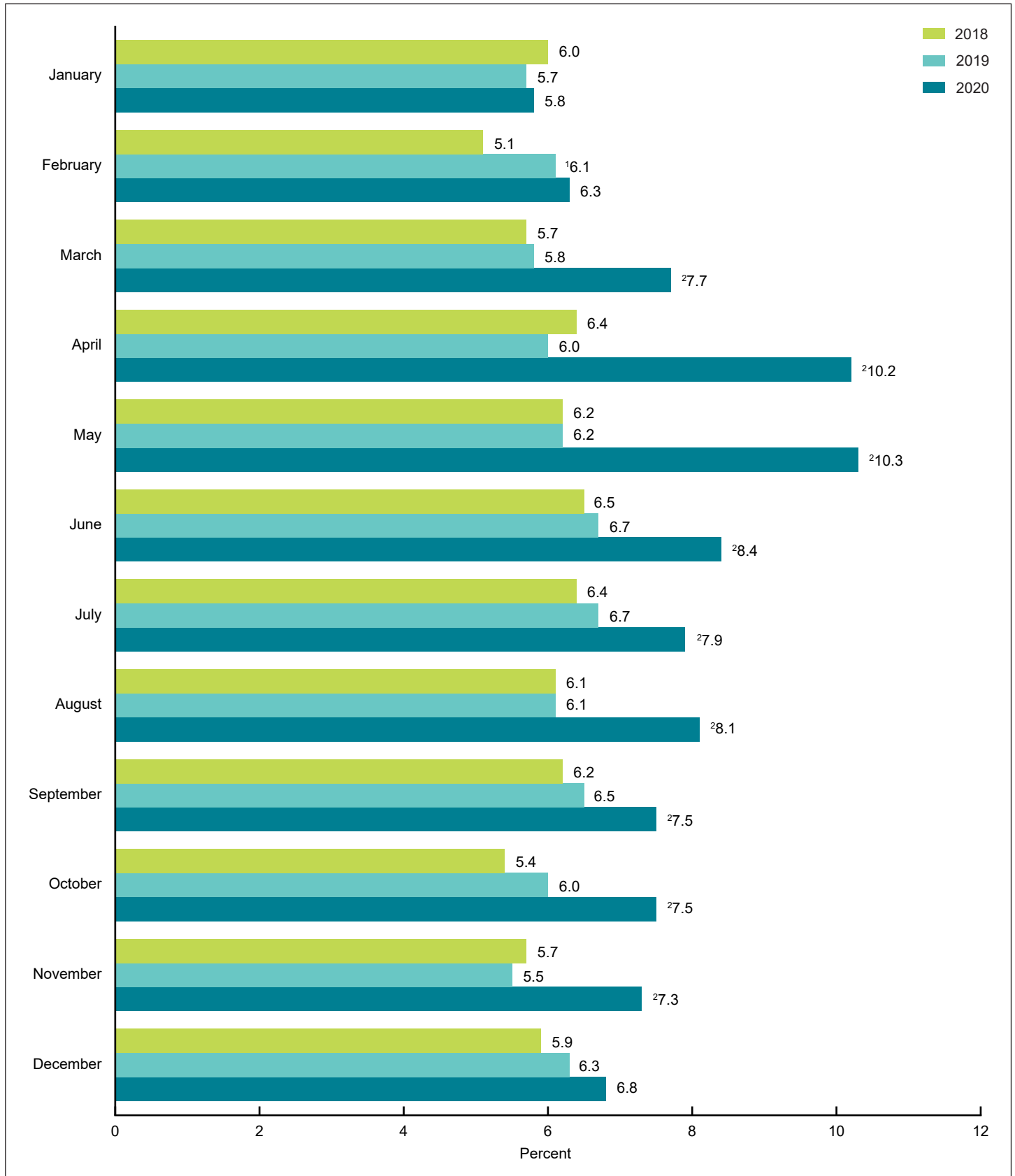
Summary

From 2019 to 2020, the percentage of NYC residents giving birth outside of the City increased overall for all months from March through November, peaking in April and May. The timing of

the increases in these out-of-city births corresponds with the height of the early pandemic in NYC (2). The overall rise in out-of-city births was largely the result of increases among non-Hispanic white women, for whom the percentage of out-of-city births more than doubled in April and May 2020 and remained at least 30% higher than the previous year through November. In contrast, out-of-city births increased in only two months among non-Hispanic black (May and November) and Hispanic (April and August) women. For 2018 and 2019, before the pandemic, the percentage of out-of-city births was essentially unchanged for most months for all NYC residents and for residents of each of the three largest race and Hispanic-origin groups.

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Figure 1. Births to all New York City residents that occurred outside of New York City: January–December 2018 to 2019, and 2019 to 2020



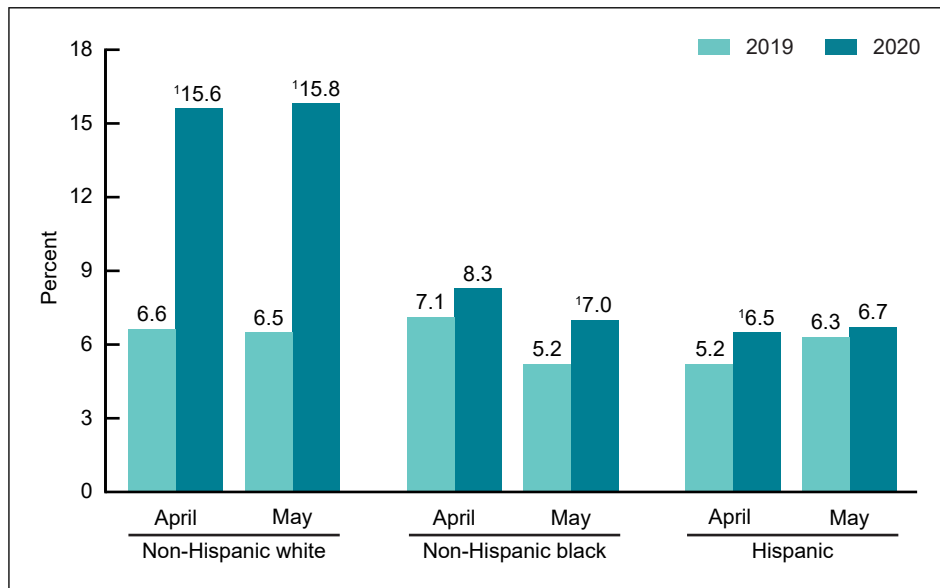
¹Significant increase from 2018 ($p < 0.05$).

²Significant increase from 2019 ($p < 0.05$).

SOURCE: National Center for Health Statistics, National Vital Statistics System, Natality.

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Figure 2. Births to New York City residents that occurred outside of New York City, by race and Hispanic origin: April and May of 2019 and 2020



*Significant increase from 2019 ($p < 0.05$).

SOURCE: National Center for Health Statistics, National Vital Statistics System, Natality.

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