## RESEARCH REPORT

## 2020 Census Overview for the Greater DC Region

## Redistricting Data

Peter A. Tatian
urban institute
February 2022

```
.....
URBAN
~. . |INSTITUTE
. . . . . . .
* - . - . . - 
. . . . . . . .
```


## ABOUT THE URBAN INSTITUTE

The nonprofit Urban Institute is a leading research organization dedicated to developing evidence-based insights that improve people's lives and strengthen communities. For 50 years, Urban has been the trusted source for rigorous analysis of complex social and economic issues; strategic advice to policymakers, philanthropists, and practitioners; and new, promising ideas that expand opportunities for all. Our work inspires effective decisions that advance fairness and enhance the well-being of people and places.

## Contents

Acknowledgments ..... iv
Executive Summary ..... v
2020 Census Overview for the Greater DC Region ..... 1
Regional Overview ..... 2
District of Columbia ..... 8
Maryland ..... 12
Virginia ..... 15
West Virginia ..... 20
Appendix A. District of Columbia Charts ..... 22
Appendix B. Maryland Charts ..... 36
Appendix C. Virginia Charts ..... 50
Appendix D. West Virginia Charts ..... 77
Appendix E. Census Data Quality ..... 80
Appendix F. Race Data ..... 95
Notes ..... 99
References ..... 104
About the Authors ..... 105
Statement of Independence ..... 106

## Acknowledgments

This report was funded by E*TRADE, through their support for the Urban-Greater DC initiative. We are grateful to them and to all our funders, who make it possible for Urban to advance its mission.

The views expressed are those of the author and should not be attributed to the Urban Institute, its trustees, or its funders. Funders do not determine research findings or the insights and recommendations of Urban experts. Further information on the Urban Institute's funding principles is available at urban.org/fundingprinciples.

The author thanks Claire Bowen and Leah Hendey of the Urban Institute for providing a technical review of this report.

## Executive Summary

According to the decennial census, the greater Washington, DC, (Greater DC) region grew from 5.6 to 6.4 million people between 2010 and 2020, an increase of 13.0 percent. The region's population growth continued a trend of several decades. Although the Greater DC region was smaller than the Philadelphia metropolitan area in 2010, faster growth put it ahead of the Philadelphia area's 6.2 million 2020 population.

The Greater DC region is comprised of the District of Columbia and 24 counties and cities in Maryland, Virginia, and West Virginia. Except for Rappahannock County in Virginia, every jurisdiction in the region grew in population over the past decade. Since 2000, the adult share of the region's population has slowly increased while the share of children has decreased. The Greater DC region was home to 4.94 million adults 18 years and older in 2020 . The adult population increased by almost 639,000 over the past decade, growing by 15 percent since 2010 . The number of children younger than 18 years rose to 1.44 million, increasing by about 96,700 (7 percent) over the same period.

The Greater DC region became more racially and ethnically diverse over the past decade. The Hispanic/Latinx population increased by almost 320,000, growing from 13.7 to 17.1 percent of the region's population since 2010. The non-Hispanic/Latinx Asian and Pacific Islander population increased by more than 221,000, rising from 10.3 to 12.6 percent of the population over the decade. The region's white and Black populations also grew between 2010 and 2020, but more slowly. As a result, the white share of the region's population fell from 49.1 to 43.5 percent, and the Black share of the population remained about the same at 26.0 percent.

This report provides additional detailed information for jurisdictions in the District of Columbia, Maryland, Virginia, and West Virginia. The total population of the District of Columbia increased by more than 87,000 (14.6 percent) between 2010 and 2020. This increase, the fourth-largest decade of population growth in the District's history, continued a growth trend starting in the late 1990s that reversed five previous decades of population decline. Although all eight wards in the District grew over the past decade, Ward 6 had by far the largest increase, accounting for one-third of the District's total population growth since 2010. Ward 6 also saw a commensurate increase in residential construction, with a net increase in housing units of 57.9 percent and 51.4 percent more households over the past decade.

The District of Columbia's child population increased from about 100,800 to 114,400 , while the adult population grew from about 500,900 to 575,200. Put differently, about 5.5 additional adults for
every 1 child were added to the District's population this past decade. Like the Greater DC region overall, the District of Columbia became more racially and ethnically diverse. The non-Hispanic/Latinx Black population remained the largest in the District at 296,800 people, or 43.0 percent, but it continued a 50 -year decline. Although the trend of Black population decline continued, the magnitude and rate of decrease between 2010 and 2020 was the slowest compared with the four prior decades. Apart from the American Indian and Alaska Native populations, which had a small decrease, the other racial and ethnic groups in the District increased in size over the past decade.

The total population of the five Maryland counties that are part of the Greater DC region increased by more than 256,000 ( 11.1 percent) between 2010 and 2020. All five counties grew over the past decade, with the largest total population change in Prince George's County (almost 104,000 more people) and the largest percentage change in Frederick County (16.4 percent). These five counties added about 82,700 net housing units over the past decade but almost 91,400 net new households. This imbalance was most pronounced in Prince George's County, where housing units grew by about 31,800 but households by almost 38,200 . Household growth represents additional demand for housing units, and if housing supply does not keep pace housing costs can rise, which may exacerbate affordability problems.

Most of the growth in the Maryland counties was in the adult population, and this difference was more pronounced in Maryland than elsewhere in the Greater DC region. About 12 adults for every 1 child were added to the Maryland counties' populations this past decade, compared with a ratio of 5 adults to 1 child for the rest of the region. Population growth over the past decade was driven by increases in the Hispanic/Latinx, non-Hispanic/Latinx Black, and non-Hispanic/Latinx Asian and Pacific Islander populations. The non-Hispanic/Latinx Black population grew by almost 108,000 between 2010 and 2020 and became the largest group overall in the Maryland counties, surpassing the nonHispanic/Latinx white population, which declined by 61,300. The Hispanic/Latinx population had even larger growth, increasing by more than 150,000 people between 2010 and 2020.

The total population of the 18 Virginia counties and cities that are part of the Greater DC region increased by more than 387,000 (14.4 percent) between 2010 and 2020. With the exception of Rappahannock County, all of these counties and cities experienced growth during the past decade. The largest population increase was in Loudoun County, which grew by more than 108,000 people, or 34.8 percent. Prince William and Stafford Counties both saw their populations increase by 20 percent or more, as did Manassas Park.

Consistent with regional trends, most of the growth in the Virginia counties and cities was in the adult population. These areas added more than 323,000 adults ages 18 and older between 2010 and 2020, compared with 63,800 children younger than 18 . Put differently, about 5.1 additional adults for every 1 child were added to the region's Virginia counties and cities this past decade. Clarke, Madison, Rappahannock, and Warren Counties actually had net decreases in their child populations.

Growth over the past decade in the Virginia counties and cities was driven largely by increases in the non-Hispanic/Latinx Asian and Pacific Islander populations and Hispanic/Latinx populations. The non-Hispanic/Latinx Asian and Pacific Islander population grew by almost 154,000 (44 percent) between 2010 and 2020. The largest Asian and Pacific Islander population was in Fairfax County, and the Asian and Pacific Islander population in Loudoun County almost doubled in size, growing from 51,700 to 100,000. The Hispanic/Latinx population grew second fastest in the Virginia counties and cities, increasing by more than 144,000 ( 36 percent) since 2010 to remain the second-largest group at 542,000. The non-Hispanic/Latinx white population remained the largest group in the Virginia counties and cities in the Greater DC region, at more than 1.58 million, but the size of this population grew by only 2,000 ( 0.1 percent) during the past decade. Fairfax County saw a large decrease in the nonHispanic/Latinx white population, which fell by 38,400.

Only one West Virginia county is part of the Greater DC region. Located about 60 miles from the District of Columbia, Jefferson County had a 2020 population of 57,700 , a 7.9 percent increase from 2010. Housing unit growth was similar at 7.8 percent, but households increased faster at 9.9 percent. Household growth represents additional demand for housing units, and if housing supply does not keep pace housing costs can rise, which may exacerbate affordability problems. Consistent with regional trends, most of the growth in Jefferson County was in the adult population, which grew from 40,800 to almost 45,000 over the past decade. Jefferson County is predominantly non-Hispanic/Latinx white, with 82 percent of people living in the county identifying with that racial/ethnic group, a slight decline from 86 percent in 2010. The white population grew by about 1,400 over the past decade, but growth in other racial and ethnic populations has made the county more diverse in 2020. The largest growth was in the Hispanic/Latinx population, which increased by more than 1,600.

## 2020 Census Overview for the Greater DC Region

Every 10 years the decennial census attempts to count every person living in the US and Puerto Rico. At a cost of $\$ 14.2$ billion, the 2020 decennial census was likely the largest public statistical undertaking in the nation (GAO 2021). On August 12, 2021, about five months later than similar releases for previous censuses, the US Census Bureau released "redistricting data files" based on the 2020 count for the 50 states, the District of Columbia, and Puerto Rico (Census 2021a). These files include the first published 2020 census data for small areas, which include census blocks and legislative districts, and the first data with population counts by race and ethnicity and for children and adults, as well as counts of total and occupied housing units.

This Urban-Greater DC report presents the most recent decennial census data for the District of Columbia and the greater Washington, DC, (Greater DC) region, with the goal of making this information accessible to a wider audience. ${ }^{1}$ The report examines the overall population and housing changes in the District of Columbia and its eight wards and in the 24 Maryland, Virginia, and West Virginia jurisdictions that make up the region. Basic tables and charts are provided in the main body of the report, and additional data charts can be found in appendices A through D.

Appendix E discusses the challenges faced in obtaining an accurate 2020 count and how those challenges may have affected the published data. Although obtaining a complete and accurate count of the entire US population is difficult under the best of circumstances, the 2020 census was even more challenging for several reasons. It was intended to be the first decennial census in which most people would respond online, although mail, phone, and in-person data collection would also be used. A highprofile political dispute around whether a citizenship question should be added to the census form may have led people who were not US citizens or who lived with noncitizens to be fearful of responding to the decennial count, even though the question ultimately did not appear on the form. The 2020 census was conducted during the COVID-19 pandemic, which made outreach to and follow-up with nonresponsive households and group quarters populations more difficult, forcing the Census Bureau to extend the time for data collection. And, finally, to prevent the possibility of someone deriving personal information from summary statistics, the Census Bureau updated its disclosure avoidance system. The 2020 disclosure avoidance system used a new, and controversial, privacy framework called differential privacy, which adds random "noise" to published data for small populations and small areas. In addition to all these challenges, the difficulty of getting hard-to-count populations, including immigrants and
people of color, to respond to the census remained present in the 2020 count. All of these issues are discussed further and documented in appendix E, along with a summary of metrics that may be used to assess the quality of the final data.

The 2020 census was also the third straight decennial census in which respondents have been able to identify themselves according to multiple races. Before the 2000 decennial census, respondents were limited to selecting only one from a list of racial categories. The new approach was intended to represent better the diversity of the US population and, in fact, the share of people selecting more than one race has steadily increased with each census. Although these data may better reflect people's own definition of their identity, they also increase the complexity of analyzing demographic trends. To address this issue, Urban-Greater DC uses three measures of race data to examine trends. The maximum and minimum estimates, indicated by the error bars on the charts in appendices $A$ through $D$, are based on people who chose a race by itself or in combination with any other race or races and people who chose only that race alone, respectively. The middle estimate, indicated by the dotted line on the charts and used in the main tables of this report, assigns people to mutually exclusive racial groups based on a methodology described in detail in appendix F.

The goal of this report is to give people in the Greater DC region access to 2020 decennial census data in a clear and easy to understand format. We do not, however, attempt to provide explanations or interpretations of the reasons behind the trends described by these data. Many factors influence demographic trends in an area like Greater DC, including national and international demographic changes, national and local policy decisions, and economic conditions. These factors include racist and exclusionary policies and practices, both national and local, that have influenced the development of our region. ${ }^{2}$ It is our hope that the data provided here will stimulate informed discussions of the changes taking place in the Greater DC region so that people can work together to address persistent inequalities and improve economic mobility and access to opportunity.

## Regional Overview

According to the decennial census, the Greater DC region grew from 5.6 to 6.4 million people between 2010 and 2020, an increase of 13.0 percent. The region's population growth continued a trend of several decades. Compared with nine other metropolitan areas of comparable size (between 4 and 8 million people), the Greater DC region was sixth in overall population growth (figure 1). Although the Greater DC region was smaller than the Philadelphia metropolitan area in 2010, faster growth put it ahead of the Philadelphia area's 6.2 million 2020 population.

FIGURE 1
Percentage Population Growth for 10 Midsized to Large Metropolitan Areas, 2010-20


Source: Decennial census data compiled by Urban-Greater DC.
Note: Consistent 2020 metropolitan area definitions were used in these calculations for both census years.

The 2020 census counted 2.5 million housing units in the Greater DC region, of which 94.4 percent were occupied and 5.6 percent were vacant (table 1). Occupied housing units are also referred to as households. The 2020 population was made up of 6.28 million people in households (i.e., living in housing units) and more than 107,000 people living in group quarters. Group quarters are places where people live or stay in a group living arrangement that is owned or managed by an organization providing housing and/or services for the residents. The group quarters population includes more than 30,000 students living in college or university housing, 22,000 adults in correctional facilities, and 22,000 people living in nursing and skilled nursing facilities.

TABLE 1
Housing Units, Households, Population, and Persons per Household, Greater DC Region, 2020

|  | Number | Percent |
| :--- | ---: | ---: |
| Housing units | $2,500,128$ | $100.0 \%$ |
| Occupied (households) | $2,360,771$ | $94.4 \%$ |
| Vacant | 139,357 | $5.6 \%$ |
| Population | $6,385,162$ | $100.0 \%$ |
| In households | $6,277,617$ | $98.3 \%$ |
| In group quarters | 107,545 | $1.7 \%$ |
| Persons per household | 2.66 | - |

[^0]The Greater DC region is comprised of the District of Columbia and 24 counties and cities in Maryland, Virginia, and West Virginia. Except for Rappahannock County, every jurisdiction in the region grew in population over the past decade (table 2). ${ }^{3}$ Although it remains the most populous jurisdiction in the region, Fairfax County's share of the region's population fell slightly, from 20.0 to 18.0 percent, between 2000 and 2020. Montgomery County, Prince George's County, the District of Columbia, Arlington County, and Alexandria, VA, also had smaller percentages of the region's population in 2020 compared with two decades ago. In contrast, more outlying jurisdictions, such as Loudoun and Prince William Counties, now make up larger shares of the Greater DC region. Loudoun County's population has more than doubled since 2000, and Prince William County has grown by more than 70 percent.

TABLE 2
Population by Jurisdiction, Greater DC Region, 2000-20

|  | Population |  |  |  | Population (\%) |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
| Jurisdiction | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 1 0}$ | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 1 0}$ | $\mathbf{2 0 2 0}$ |  |
| Total | $4,849,948$ | $5,649,540$ | $6,385,162$ | 100.0 | 100.0 | 100.0 |  |
| Alexandria, VA | 128,283 | 139,966 | 159,467 | 2.6 | 2.5 | 2.5 |  |
| Arlington County, VA | 189,453 | 207,627 | 238,643 | 3.9 | 3.7 | 3.7 |  |
| Calvert County, MD | 74,563 | 88,737 | 92,783 | 1.5 | 1.6 | 1.5 |  |
| Charles County, MD | 120,546 | 146,551 | 166,617 | 2.5 | 2.6 | 2.6 |  |
| Clarke County, VA | 12,652 | 14,034 | 14,783 | 0.3 | 0.2 | 0.2 |  |
| Culpeper County, VA | 34,262 | 46,689 | 52,552 | 0.7 | 0.8 | 0.8 |  |
| District of Columbia | 572,059 | 601,723 | 689,545 | 11.8 | 10.7 | 10.8 |  |
| Fairfax County, VA | 969,749 | $1,081,726$ | $1,150,309$ | 20.0 | 19.1 | 18.0 |  |
| Fairfax, VA | 21,498 | 22,565 | 24,146 | 0.4 | 0.4 | 0.4 |  |
| Falls Church, VA | 10,377 | 12,332 | 14,658 | 0.2 | 0.2 | 0.2 |  |
| Fauquier County, VA | 55,139 | 65,203 | 72,972 | 1.1 | 1.2 | 1.1 |  |
| Frederick County, MD | 195,277 | 233,385 | 271,717 | 4.0 | 4.1 | 4.3 |  |
| Fredericksburg, VA | 19,279 | 24,286 | 27,982 | 0.4 | 0.4 | 0.4 |  |
| Jefferson County, WV | 42,190 | 53,498 | 57,701 | 0.9 | 0.9 | 0.9 |  |
| Loudoun County, VA | 169,599 | 312,311 | 420,959 | 3.5 | 5.5 | 6.6 |  |
| Madison County, VA | 12,520 | 13,308 | 13,837 | 0.3 | 0.2 | 0.2 |  |
| Manassas Park, VA | 10,290 | 14,273 | 17,219 | 0.2 | 0.3 | 0.3 |  |
| Manassas, VA | 35,135 | 37,821 | 42,772 | 0.7 | 0.7 | 0.7 |  |
| Montgomery County, MD | 873,341 | 971,777 | $1,062,061$ | 18.0 | 17.2 | 16.6 |  |
| Prince George's County, MD | 801,515 | 863,420 | 967,201 | 16.5 | 15.3 | 15.1 |  |
| Prince William County, VA | 280,813 | 402,002 | 482,204 | 5.8 | 7.1 | 7.6 |  |
| Rappahannock County, VA | 6,983 | 7,373 | 7,348 | 0.1 | 0.1 | 0.1 |  |
| Spotsylvania County, VA | 90,395 | 122,397 | 140,032 | 1.9 | 2.2 | 2.2 |  |
| Stafford County, VA | 92,446 | 128,961 | 156,927 | 1.9 | 2.3 | 2.5 |  |
| Warren County, VA | 31,584 | 37,575 | 40,727 | 0.7 | 0.7 | 0.6 |  |

[^1]Increases in housing units (table 3) and households (table 4) generally followed similar trends to population growth. One notable exception was the District of Columbia. Although the District had 10.8 percent of the region's population in 2020, it had 14.0 percent of all housing units, an increase from 13.2 percent in 2010. Intensive development of new housing in the District led to a net increase of more than 53,000 units over the past decade, about one-fifth of the region's housing growth and the largest net increase among all jurisdictions. Apart from Fredericksburg, VA, the District is the only place in the region where housing unit growth exceeded population growth.

The District's share of households in the region also increased, from 12.7 to 13.2 percent, a net increase of more than 45,000 households, again despite the District's having a lower share of the region's population. This shift implies that, relative to other jurisdictions in the Greater DC region, household sizes in the District trended smaller, with fewer people per housing unit than 10 years earlier.

TABLE 3
Housing Units (Occupied and Vacant) by Jurisdiction, Greater DC Region, 2000-20

| Jurisdiction | Housing Units |  |  | Housing Units (\%) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2000 | 2010 | 2020 | 2000 | 2010 | 2020 |
| Total | 1,911,450 | 2,241,180 | 2,500,128 | 100.0 | 100.0 | 100.0 |
| Alexandria, VA | 64,251 | 72,376 | 80,479 | 3.4 | 3.2 | 3.2 |
| Arlington County, VA | 90,426 | 105,404 | 119,085 | 4.7 | 4.7 | 4.8 |
| Calvert County, MD | 27,576 | 33,780 | 35,663 | 1.4 | 1.5 | 1.4 |
| Charles County, MD | 43,903 | 54,963 | 62,123 | 2.3 | 2.5 | 2.5 |
| Clarke County, VA | 5,388 | 6,235 | 6,371 | 0.3 | 0.3 | . 3 |
| Culpeper County, VA | 12,871 | 17,657 | 19,185 | 0.7 | 0.8 | 0.8 |
| District of Columbia | 274,845 | 296,719 | 350,364 | 14.4 | 13.2 | 14.0 |
| Fairfax County, VA | 359,411 | 407,998 | 427,149 | 18.8 | 18.2 | 17.1 |
| Fairfax, VA | 8,204 | 8,680 | 9,330 | 0.4 | 0.4 | 0.4 |
| Falls Church, VA | 4,725 | 5,489 | 6,172 | 0.2 | 0.2 | 0.2 |
| Fauquier County, VA | 21,046 | 25,600 | 28,249 | 1.1 | 1.1 | 1.1 |
| Frederick County, MD | 73,017 | 90,136 | 103,493 | 3.8 | 4.0 | 4.1 |
| Fredericksburg, VA | 8,888 | 10,467 | 12,175 | 0.5 | 0.5 | 0.5 |
| Jefferson County, WV | 17,623 | 22,037 | 23,762 | 0.9 | 1.0 | 1.0 |
| Loudoun County, VA | 62,160 | 109,442 | 142,074 | 3.3 | 4.9 | 5.7 |
| Madison County, VA | 5,239 | 5,932 | 6,051 | 0.3 | 0.3 | 0.2 |
| Manassas Park, VA | 3,365 | 4,904 | 5,525 | 0.2 | 0.2 | 0.2 |
| Manassas, VA | 12,114 | 13,123 | 14,365 | 0.6 | 0.6 | 0.6 |
| Montgomery County, MD | 334,632 | 375,905 | 404,423 | 17.5 | 16.8 | 16.2 |
| Prince George's County, MD | 302,378 | 328,182 | 359,957 | 15.8 | 14.6 | 14.4 |
| Prince William County, VA | 98,052 | 137,115 | 158,525 | 5.1 | 6.1 | 6.3 |
| Rappahannock County, VA | 3,303 | 3,839 | 3,826 | 0.2 | 0.2 | 0.2 |
| Spotsylvania County, VA | 33,329 | 45,185 | 52,250 | 1.7 | 2.0 | 2.1 |
| Stafford County, VA | 31,405 | 43,978 | 52,793 | 1.6 | 2.0 | 2.1 |
| Warren County, VA | 13,299 | 16,034 | 16,739 | 0.7 | 0.7 | 0.7 |

Source: Decennial census data compiled by Urban-Greater DC for the Washington-Arlington-Alexandria, DC-VA-MD-WV, Metro Area (March 2020 definition).

TABLE 4
Households by Jurisdiction, Greater DC Region, 2000-20

|  | Households |  |  |  | Households (\%) |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
| Jurisdiction | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 1 0}$ | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 1 0}$ | $\mathbf{2 0 2 0}$ |  |
| Total | $1,819,931$ | $2,099,116$ | $2,360,771$ | 100.0 | 100.0 | 100.0 |  |
| Alexandria, VA | 61,889 | 68,082 | 75,555 | 3.4 | 3.2 | 3.2 |  |
| Arlington County, VA | 86,352 | 98,050 | 109,912 | 4.7 | 4.7 | 4.7 |  |
| Calvert County, MD | 25,447 | 30,873 | 32,754 | 1.4 | 1.5 | 1.4 |  |
| Charles County, MD | 41,668 | 51,214 | 59,107 | 2.3 | 2.4 | 2.5 |  |
| Clarke County, VA | 4,942 | 5,509 | 5,847 | 0.3 | 0.3 | 0.2 |  |
| Culpeper County, VA | 12,141 | 16,231 | 18,181 | 0.7 | 0.8 | 0.8 |  |
| District of Columbia | 248,338 | 266,707 | 312,448 | 13.6 | 12.7 | 13.2 |  |
| Fairfax County, VA | 350,714 | 391,627 | 411,055 | 19.3 | 18.7 | 17.4 |  |
| Fairfax, VA | 8,035 | 8,347 | 8,800 | 0.4 | 0.4 | 0.4 |  |
| Falls Church, VA | 4,471 | 5,101 | 5,811 | 0.2 | 0.2 | 0.2 |  |
| Fauquier County, VA | 19,842 | 23,658 | 26,400 | 1.1 | 1.1 | 1.1 |  |
| Frederick County, MD | 70,060 | 84,800 | 98,358 | 3.8 | 4.0 | 4.2 |  |
| Fredericksburg, VA | 8,102 | 9,505 | 11,275 | 0.4 | 0.5 | 0.5 |  |
| Jefferson County, WV | 16,165 | 19,931 | 21,902 | 0.9 | 0.9 | 0.9 |  |
| Loudoun County, VA | 59,900 | 104,583 | 137,442 | 3.3 | 5.0 | 5.8 |  |
| Madison County, VA | 4,739 | 5,083 | 5,317 | 0.3 | 0.2 | 0.2 |  |
| Manassas Park, VA | 3,254 | 4,507 | 5,381 | 0.2 | 0.2 | 0.2 |  |
| Manassas, VA | 11,757 | 12,527 | 13,983 | 0.6 | 0.6 | 0.6 |  |
| Montgomery County, MD | 324,565 | 357,086 | 386,931 | 17.8 | 17.0 | 16.4 |  |
| Prince George's County, MD | 286,610 | 304,042 | 342,216 | 15.7 | 14.5 | 14.5 |  |
| Prince William County, VA | 94,570 | 130,785 | 153,745 | 5.2 | 6.2 | 6.5 |  |
| Rappahannock County, VA | 2,788 | 3,072 | 3,202 | 0.2 | 0.1 | 0.1 |  |
| Spotsylvania County, VA | 31,308 | 41,942 | 48,958 | 1.7 | 2.0 | 2.1 |  |
| Stafford County, VA | 30,187 | 41,769 | 50,869 | 1.7 | 2.0 | 2.2 |  |
| Warren County, VA | 12,087 | 14,085 | 15,322 | 0.7 | 0.7 | 0.6 |  |

Source: Decennial census data compiled by Urban-Greater DC for the Washington-Arlington-Alexandria, DC-VA-MD-WV, Metro Area (March 2020 definition).

Since 2000, the adult share of the region's population has slowly increased while the share of children has decreased. The Greater DC region was home to 4.94 million adults 18 years and older in 2020 (table 5). The adult population increased by almost 639,000 over the past decade, growing by 15 percent since 2010. The number of children younger than 18 rose to 1.44 million, increasing by about 96,700 ( 7 percent) over the same period.

TABLE 5
Child and Adult Populations, Greater DC Region, 2000-20

|  | Population |  |  | Population (\%) |  |  |
| :--- | :---: | :---: | :---: | ---: | ---: | ---: |
| Population (age) | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 1 0}$ | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 1 0}$ | $\mathbf{2 0 2 0}$ |
| Total | $4,849,948$ | $5,649,540$ | $6,385,162$ | 100.0 | 100.0 | 100.0 |
| Children <18 | $1,223,056$ | $1,348,790$ | $1,445,499$ | 25.2 | 23.9 | 22.6 |
| Adults 18+ | $3,626,892$ | $\mathbf{4 , 3 0 0 , 7 5 0}$ | $4,939,663$ | 74.8 | 76.1 | 77.4 |

[^2]The Greater DC region became more racially and ethnically diverse over the past decade, with proportionally larger population growth for the Hispanic/Latinx and Asian/Pacific Islander populations. The Hispanic/Latinx population increased by almost 320,000, growing from 13.7 to 17.1 percent of the region's population since 2010 (table 6). ${ }^{4}$ The non-Hispanic/Latinx Asian and Pacific Islander population increased by more than 221,000 , rising from 10.3 to 12.6 percent of the population over the decade. The region's white and Black populations also grew between 2010 and 2020, but more slowly. As a result, the white share of the region's population fell from 49.1 to 43.5 percent, and the Black share of the population remained about the same at 26.0 percent.

TABLE 6
Population by Race and Ethnicity, Greater DC Region, 2000-20

|  | Population |  |  |  | Population (\%) |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
| Race/Ethnicity | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 1 0}$ | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 1 0}$ | $\mathbf{2 0 2 0}$ |  |
| Total | $4,849,948$ | $5,649,540$ | $6,385,162$ | 100.0 | 100.0 | 100.0 |  |
| Hispanic/Latinx | 429,609 | 775,416 | $1,094,950$ | 8.9 | 13.7 | 17.1 |  |
| NH Am. Indian and AK |  |  |  |  |  |  |  |
| Native | 13,450 | 12,619 | 11,378 | 0.3 | 0.2 | 0.2 |  |
| NH Asian and PI | 365,707 | 582,236 | 803,603 | 7.5 | 10.3 | 12.6 |  |
| NH Black | $1,306,824$ | $1,486,865$ | $1,658,715$ | 26.9 | 26.3 | 26.0 |  |
| NH some other race | 11,816 | 15,698 | 40,572 | 0.2 | 0.3 | 0.6 |  |
| NH white | $2,722,542$ | $2,776,706$ | $2,775,944$ | 56.1 | 49.1 | 43.5 |  |
| NH multiracial | 118,333 | 147,039 | 300,816 | 2.4 | 2.6 | 4.7 |  |

Source: Decennial census data compiled by Urban-Greater DC for the Washington-Arlington-Alexandria, DC-VA-MD-WV,
Metro Area (March 2020 definition).
Notes: NH = non-Hispanic/Latinx; Am. = American; AK = Alaska; PI = Pacific Islander. Non-Hispanic/Latinx people who selected
more than one race on the census form (i.e., NH Multiracial) were assigned to single-race groups, using a method described in
appendix F, so that the individual race and ethnic groups sum to the total population.

As discussed in appendix F, for comparability to early census data we assigned people who chose more than one race to single-race groups. The region's multiracial population has grown larger since the 2000 census, when those data were first collected. People who identified as more than one race have more than doubled since the 2010 census, and their share has increased to almost 1 out of every 20 people.

Additional details on trends in the District of Columbia, Maryland, Virginia, and West Virginia, including data on race, ethnicity, and adult population, are provided in the remaining sections of this report.

## District of Columbia

The total population of the District of Columbia increased by more than 87,000 (14.6 percent) between 2010 and 2020. This was the fourth-largest decade of population growth in the District's history (figure 2). Only the 1910s, 1930s, and 1940s saw larger increases in the numbers of people living in the nation's capital. It also continued a growth trend starting in the late 1990s that reversed five previous decades of population decline.

FIGURE 2
Population Change by Decade, District of Columbia, 1800-2020


Source: Decennial census data compiled by Urban-Greater DC.
Note: The four decades with the largest population growth are highlighted in gold.

The District of Columbia's eight wards are political boundaries used to elect representatives to the DC Council (figure 3). The current ward boundaries were drawn in 2012 and had roughly equal populations at that time. Although all eight wards grew over the past decade, Ward 6 had by far the largest increase (table 7). The population of Ward 6 grew by more than 32,000, a 42.4 percent rise, reaching
about 108,200 people by 2020. Ward 6 accounted for one-third of the District's total population growth since 2010. Ward 6 also saw a commensurate increase in residential construction, with a net increase in housing units of 57.9 percent and 51.4 percent more households over the past decade.

FIGURE 3
District of Columbia Wards


Source: Map created from shapefiles downloaded from opendata.dc.gov (accessed April 18, 2012).

TABLE 7
Population, Housing Units, and Households by Ward, District of Columbia, 2010 and 2020

| Ward | Population |  | Change (\%) | Housing Units |  | Change <br> (\%) | Households |  | Change (\%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2010 | 2020 |  | 2010 | 2020 |  | 2010 | 2020 |  |
| Total | 601,723 | 689,545 | 14.6 | 296,719 | 350,364 | 18.1 | 266,707 | 312,448 | 17.2 |
| 1 | 74,462 | 85,285 | 14.5 | 37,559 | 45,694 | 21.7 | 34,095 | 41,035 | 20.4 |
| 2 | 76,883 | 81,904 | 6.5 | 44,599 | 49,099 | 10.1 | 39,453 | 42,927 | 8.8 |
| 3 | 78,887 | 85,301 | 8.1 | 41,867 | 44,109 | 5.4 | 38,853 | 40,656 | 4.6 |
| 4 | 75,773 | 84,660 | 11.7 | 31,665 | 34,650 | 9.4 | 29,326 | 32,152 | 9.6 |
| 5 | 74,308 | 89,425 | 20.3 | 34,495 | 41,678 | 20.8 | 30,605 | 37,114 | 21.3 |
| 6 | 76,000 | 108,202 | 42.4 | 42,111 | 66,473 | 57.9 | 37,704 | 57,081 | 51.4 |
| 7 | 71,748 | 76,255 | 6.3 | 32,243 | 34,415 | 6.7 | 28,549 | 30,840 | 8.0 |
| 8 | 73,662 | 78,513 | 6.6 | 32,180 | 34,246 | 6.4 | 28,122 | 30,643 | 9.0 |

Source: Decennial census data compiled by Urban-Greater DC.

Ward 5 was the second-fastest-growing ward, increasing its population and number of housing units and households by more than 20 percent. Third fastest was Ward 1, which grew 14.5 percent in population but had even larger increases in housing units (21.7 precent) and households (20.4 percent). Ward 7 was the slowest growing among the eight wards. Its population increased by about 4,500 (6.3 percent) over the past decade.

Because the District's wards are political areas, their boundaries must be redrawn every 10 years to accommodate population changes. To have more balanced representation among all parts of the District, the eight wards would need to have about 86,000 people each. Accomplishing this balance would require reducing the size of Ward 6 and increasing the sizes of Wards 7 and 8 , along with changes to other wards. On December 21, 2021, the DC Council approved revised ward boundaries to address the population changes in the 2020 decennial census data. ${ }^{5}$ On December 29, 2021, DC Mayor Muriel Bowser signed these new boundaries into law, in effect as of January 1, $2022 .{ }^{6}$

The District of Columbia's child population increased from about 100,800 to 114,400 , while the adult population grew from about 500,900 to 575,200 (table 8 and appendix A). Put differently, about 5.5 additional adults for every 1 child were added to the District's population this past decade. The District's child population was about 16.6 percent of the total population in 2020 , similar to 10 years ago ( 16.8 percent). Ward 8 remained the part of the District with the largest child population, about 22,100, but the number of children living in this ward increased only slightly. In contrast, the number of children in Ward 6 grew by about 3,300, while the child populations in Wards 3, 4, and 5 rose by more than 2,700 each. Ward 7 was the only place where the child population declined between 2010 and 2020.

TABLE 8
Child and Adult Populations by Ward, District of Columbia, 2010 and 2020

| Ward | 2010 |  |  | 2020 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Children $<18$ | Adults $18+$ | Total | Children $<18$ | Adults 18+ |
| Total | 601,723 | 100,815 | 500,908 | 689,545 | 114,384 | 575,161 |
| 1 | 74,462 | 8,930 | 65,532 | 85,285 | 10,031 | 75,254 |
| 2 | 76,883 | 3,678 | 73,205 | 81,904 | 4,614 | 77,290 |
| 3 | 78,887 | 10,212 | 68,675 | 85,301 | 13,143 | 72,158 |
| 4 | 75,773 | 15,202 | 60,571 | 84,660 | 18,087 | 66,573 |
| 5 | 74,308 | 12,732 | 61,576 | 89,425 | 15,499 | 73,926 |
| 6 | 76,000 | 10,594 | 65,406 | 108,202 | 13,891 | 94,311 |
| 7 | 71,748 | 17,549 | 54,199 | 76,255 | 17,020 | 59,235 |
| 8 | 73,662 | 21,918 | 51,744 | 78,513 | 22,099 | 56,414 |

[^3]Like the Greater DC region overall, the District of Columbia became more racially and ethnically diverse this past decade. The non-Hispanic/Latinx Black population remained the largest in the District at 296,800 people, or 43.0 percent (table 9 and appendix $A$ ), but it has continued a 50-year decline. Since its peak of more than 537,000 in the 1970 census, the District's Black population has fallen by more than 240,000, including a decline of 11,800 ( 3.8 percent) over the past decade. Although the trend of Black population decline continued between 2010 and 2020, the magnitude and rate of decrease was slower than in any of the four prior decades. The Hispanic/Latinx population includes people who also identified as Black but are not part of the Black population in table 9. Including people who are Black Hispanic/Latinx would bring the District's Black population to more than 304,000. Despite the overall decline, the non-Hispanic/Latinx Black population increased in Wards 2, 3, 7, and 8.

TABLE 9
Population by Race/Ethnicity and Ward, District of Columbia, 2020

|  | NH Am. <br> Hispanic/ <br> Ward |  |  |  | Indian and <br> Latinx Native | NH Asian <br> and PI |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| NH Black | NH some <br> other race | NH white |  |  |  |  |
| Total | 77,652 | 1,318 | 42,850 | 296,772 | 3,753 | 267,200 |
| 1 | 17,269 | 165 | 6,687 | 19,935 | 422 | 40,807 |
| 2 | 8,959 | 104 | 11,034 | 7,756 | 434 | 53,617 |
| 3 | 8,293 | 70 | 9,017 | 7,236 | 524 | 60,161 |
| 4 | 18,646 | 141 | 3,195 | 38,819 | 568 | 23,291 |
| 5 | 10,401 | 227 | 3,667 | 52,946 | 530 | 21,654 |
| 6 | 7,949 | 196 | 8,113 | 30,321 | 547 | 61,076 |
| 7 | 3,559 | 210 | 498 | 68,725 | 398 | 2,865 |
| 8 | 2,576 | 205 | 639 | 71,034 | 330 | 3,729 |

Source: Decennial census data compiled by Urban-Greater DC.
Notes: NH = non-Hispanic/Latinx; Am. = American; AK = Alaska; PI = Pacific Islander. Non-Hispanic/Latinx people who selected more than one race on the census form were assigned to single-race groups, using a method described in appendix $F$, so that the individual race and ethnic groups sum to the total population. The multiracial population was less than 5 percent of the total population in the District of Columbia in 2020.

Apart from the American Indian and Alaska Native populations, which had a small decrease, the other racial and ethnic groups in the District increased in size over the past decade. The largest growth was in the non-Hispanic/Latinx white population, which increased by almost 56,900 between 2010 and 2020, with the largest growth in Ward $6(+25,400)$, Ward $1(+11,000)$, and Ward $5(+10,700)$. The District's Hispanic/Latinx population grew the second fastest, rising by almost 23,000, with the largest growth in Ward $5(+5,700)$, Ward $4(+4,500)$, and Ward $6(+4,300)$. The non-Hispanic/Latinx Asian and Pacific Islander population was third fastest $(+17,600)$, with the largest growth in Ward $6(+4,200)$, Ward $2(+3,200)$, and Ward $1(3,000)$.

## Maryland

The total population of the five Maryland counties that are part of the Greater DC region (figure 4) increased by more than 256,000 (11.1 percent) between 2010 and 2020 (table 10). All five counties grew over the past decade, with the largest total population change in Prince George's County (almost 104,000 more people) and the largest percentage change in Frederick County ( 16.4 percent).

Montgomery County had the second-largest total population change (over 90,000 more people) since 2010. The slowest growth, both in total population and percentage, was in Calvert County, which grew by a slightly more than 4,000 people.

FIGURE 4
Maryland Counties in the Greater DC Region


Source: Map created from shapefiles downloaded from https://www2.census.gov/geo/tiger/TIGER2018/COUNTY/ (accessed July 19, 2019).

TABLE 10

## Population for Maryland Counties in the Greater DC Region, 2010 and 2020

|  | Population |  |  |
| :--- | ---: | ---: | ---: |
| Jurisdiction | $\mathbf{2 0 1 0}$ | $\mathbf{2 0 2 0}$ | Change (\%) |
| Total | $2,303,870$ | $2,560,379$ | 11.1 |
| Calvert | 88,737 | 92,783 | 4.6 |
| Charles | 146,551 | 166,617 | 13.7 |
| Frederick | 233,385 | 271,717 | 16.4 |
| Montgomery | 971,777 | $1,062,061$ | 9.3 |
| Prince George's | 863,420 | 967,201 | 12.0 |

Source: Decennial census data compiled by Urban-Greater DC.

Household growth exceeded housing unit growth in Greater DC's Maryland counties between 2010 and 2020. These five counties added about 82,700 net housing units over the past decade, but almost 91,400 net new households (table 11). This imbalance was most pronounced in Prince George's County, where housing units grew by about 31,800 but households by almost 38,200 . Household growth represents additional demand for housing units, and if housing supply does not keep pace housing costs can rise, which may exacerbate affordability problems. Housing unit and household growth was most in balance in Calvert County (a net increase of about 1,900 housing units and households) and Frederick County ( 13,400 more housing units and 13,600 more households).

TABLE 11
Housing Units and Households for Maryland Counties in the Greater DC Region, 2010 and 2020

| Jurisdiction | Housing Units |  | Change (\%) | Households |  | Change <br> (\%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2010 | 2020 |  | 2010 | 2020 |  |
| Total | 882,966 | 965,659 | 9.4 | 828,015 | 919,366 | 11.0 |
| Calvert | 33,780 | 35,663 | 5.6 | 30,873 | 32,754 | 6.1 |
| Charles | 54,963 | 62,123 | 13.0 | 51,214 | 59,107 | 15.4 |
| Frederick | 90,136 | 103,493 | 14.8 | 84,800 | 98,358 | 16.0 |
| Montgomery | 375,905 | 404,423 | 7.6 | 357,086 | 386,931 | 8.4 |
| Prince George's | 328,182 | 359,957 | 9.7 | 304,042 | 342,216 | 12.6 |

Source: Decennial census data compiled by Urban-Greater DC.

Most of the growth in the Maryland counties was in the adult population, and this difference was more pronounced in Maryland than elsewhere in the Greater DC region. For every 1 child, about 12 adults were added to the Maryland counties' populations this past decade, compared with a ratio of 5 adults to 1 child for the rest of the region. The five counties added more than 237,000 adults ages 18 and older between 2010 and 2020, compared with only 19,300 children younger than 18 (table 12). Calvert County actually had a net loss of 1,300 children, the only county to have a decrease. The largest increase in children was in Montgomery County (9,400 more children), followed by Prince George's

County $(5,200)$ and Frederick County $(5,000)$. When additional data become available with more detailed breakdowns of population by age, it may be possible to better understand these trends.

TABLE 12
Child and Adult Populations for Maryland Counties in the Greater DC Region, 2010 and 2020

|  | 2010 |  |  |  | $\mathbf{2 0 2 0}$ |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
| Jurisdiction | Children |  |  | Adults | Children |  |  | Adults

Source: Decennial census data compiled by Urban-Greater DC.

Population growth over the past decade in the five Maryland counties in the Greater DC region was driven by increases in the Hispanic/Latinx, non-Hispanic/Latinx Black, and non-Hispanic/Latinx Asian and Pacific Islander populations. The non-Hispanic/Latinx Black population grew by almost 108,000 between 2010 and 2020 and became the largest group overall in the Maryland counties, surpassing the nonHispanic/Latinx white population, which declined by 61,300 (table 13 and appendix B). The Hispanic/Latinx population includes people who also identified as Black but are not part of the Black population in table 13. Including people who are Black Hispanic/Latinx would bring the Maryland counties' Black population to more than 970,000. The largest growth in the non-Hispanic/Latinx Black population was in Montgomery County (+38,400), Prince George's County (+33,500), and Charles County (+24,700).

TABLE 13
Population by Race/Ethnicity for Maryland Counties in the Greater DC Region, 2020

| Jurisdiction | Hispanic/ Latinx | NH Am. Indian and AK Native | NH Asian and PI | NH Black | NH some other race | NH white |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total | 470,870 | 5,027 | 253,290 | 939,720 | 17,143 | 874,329 |
| Calvert | 4,202 | 207 | 2,792 | 14,032 | 406 | 71,144 |
| Charles | 11,677 | 1,012 | 7,160 | 87,077 | 957 | 58,734 |
| Frederick | 32,119 | 407 | 16,828 | 32,204 | 1,445 | 188,714 |
| Montgomery | 217,409 | 1,432 | 180,354 | 210,881 | 8,589 | 443,396 |
| Prince George's | 205,463 | 1,969 | 46,156 | 595,526 | 5,746 | 112,341 |

Source: Decennial census data compiled by Urban-Greater DC.
Notes: NH = non-Hispanic/Latinx; Am. = American; AK = Alaska; PI = Pacific Islander. Non-Hispanic/Latinx people who selected more than one race on the census form were assigned to single-race groups, using a method described in appendix $F$, so that the individual race and ethnic groups sum to the total population. The multiracial population was less than 5 percent of the total population in the Maryland counties in 2020.

The Hispanic/Latinx population had even larger growth, increasing by more than 150,000 people between 2010 and 2020. This included increases of 76,500 in Prince George's County, 52,000 in Montgomery County, and 15,000 in Frederick County. The third-largest increase was in the nonHispanic/Latinx Asian and Pacific Islander populations, which grew by more than 49,300 people. Almost all of this growth, 32,700 people, was in Montgomery County, which has by far the largest Asian and Pacific Islander population among the five Maryland counties.

In contrast, as noted above, the non-Hispanic/Latinx white population declined by more than 61,300 this past decade in the five Maryland counties. The largest decrease was in Montgomery County, where the white population fell by more than 37,500 . Prince George's County ( $-17,500$ ) and Charles County ( $-12,700$ ) also experienced drops in the white population. Frederick County had 6,300 more white people by 2020, however, compared with 2010, while in Calvert County the white population remained about the same.

The largest non-Hispanic/Latinx American Indian and Alaska Native populations were in Prince George's County, and the largest non-Hispanic/Latinx some other race population was in Montgomery County.

## Virginia

The total population of the 18 Virginia counties and cities that are part of the Greater DC region (figure 5) increased by more than 387,000 ( 14.4 percent) between 2010 and 2020 (table 14). With the exception of Rappahannock County, all of these counties and cities experienced growth during the past decade. Fairfax County remained the area with the largest population, increasing to 1.15 million, a 6.3 percent increase since 2010. Counties and cities farther from the urban center of the region had faster growth. The largest population increase was in Loudoun County, which grew by more than 108,000 people, or 34.8 percent. Prince William and Stafford Counties both saw their populations increase by 20 percent or more, as did Manassas Park.

## FIGURE 5

## Virginia Counties and Cities in the Greater DC Region



Source: Map created from shapefiles downloaded from https://www2.census.gov/geo/tiger/TIGER2018/COUNTY/ (accessed July 19, 2019)

## TABLE 14

Population for Virginia Counties and Cities in the Greater DC Region, 2010 and 2020

|  | Population |  |  |
| :--- | ---: | ---: | ---: |
| Jurisdiction | 2010 | $\mathbf{2 0 2 0}$ | Change <br> $(\%)$ |
| Total | $2,690,449$ | $3,077,537$ | 14.4 |
| Alexandria | 139,966 | 159,467 | 13.9 |
| Arlington County | 207,627 | 238,643 | 14.9 |
| Clarke County | 14,034 | 14,783 | 5.3 |
| Culpeper County | 46,689 | 52,552 | 12.6 |
| Fairfax County | $1,081,726$ | $1,150,309$ | 6.3 |
| Fairfax | 22,565 | 24,146 | 7.0 |
| Falls Church | 12,332 | 14,658 | 18.9 |
| Fauquier County | 65,203 | 72,972 | 11.9 |
| Fredericksburg | 24,286 | 27,982 | 15.2 |
| Loudoun County | 312,311 | 420,959 | 34.8 |
| Madison County | 13,308 | 13,837 | 4.0 |
| Manassas Park | 14,273 | 17,219 | 20.6 |
| Manassas | 37,821 | 42,772 | 13.1 |
| Prince William County | 402,002 | 482,204 | 20.0 |
| Rappahannock County | 7,373 | 7,348 | -0.3 |
| Spotsylvania County | 122,397 | 140,032 | 14.4 |
| Stafford County | 128,961 | 156,927 | 21.7 |
| Warren County | 37,575 | 40,727 | 8.4 |

[^4]Household and housing unit growth in Greater DC's Virginia counties and cities were fairly balanced between 2010 and 2020 (table 15). These areas added almost 121,000 net housing units over the past decade and almost 123,000 net new households. Household growth represents additional demand for housing units, and if housing supply does not keep pace housing costs can rise, which may exacerbate affordability problems. Many of the less populated areas located farther from the region's urban center had larger household growth than growth in the number of housing units, but the differences were relatively small (e.g., 338 more households compared with 136 more housing units in Clarke County). In contrast, Arlington and Spotsylvania Counties and the cities of Alexandria and Fairfax had larger increases in housing units than households.

TABLE 15
Housing Units and Households for Virginia Counties and Cities in the Greater DC Region, 2010 and 2020

| Jurisdiction | Housing Units |  | Change (\%) | Households |  | Change(\%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2010 | 2020 |  | 2010 | 2020 |  |
| Total | 1,039,458 | 1,160,343 | 11.6 | 984,463 | 1,107,055 | 12.5 |
| Alexandria | 72,376 | 80,479 | 11.2 | 68,082 | 75,555 | 11.0 |
| Arlington County | 105,404 | 119,085 | 13.0 | 98,050 | 109,912 | 12.1 |
| Clarke County | 6,235 | 6,371 | 2.2 | 5,509 | 5,847 | 6.1 |
| Culpeper County | 17,657 | 19,185 | 8.7 | 16,231 | 18,181 | 12.0 |
| Fairfax County | 407,998 | 427,149 | 4.7 | 391,627 | 411,055 | 5.0 |
| Fairfax | 8,680 | 9,330 | 7.5 | 8,347 | 8,800 | 5.4 |
| Falls Church | 5,489 | 6,172 | 12.4 | 5,101 | 5,811 | 13.9 |
| Fauquier County | 25,600 | 28,249 | 10.3 | 23,658 | 26,400 | 11.6 |
| Fredericksburg | 10,467 | 12,175 | 16.3 | 9,505 | 11,275 | 18.6 |
| Loudoun County | 109,442 | 142,074 | 29.8 | 104,583 | 137,442 | 31.4 |
| Madison County | 5,932 | 6,051 | 2.0 | 5,083 | 5,317 | 4.6 |
| Manassas Park | 4,904 | 5,525 | 12.7 | 4,507 | 5,381 | 19.4 |
| Manassas | 13,123 | 14,365 | 9.5 | 12,527 | 13,983 | 11.6 |
| Prince William County | 137,115 | 158,525 | 15.6 | 130,785 | 153,745 | 17.6 |
| Rappahannock County | 3,839 | 3,826 | -0.3 | 3,072 | 3,202 | 4.2 |
| Spotsylvania County | 45,185 | 52,250 | 15.6 | 41,942 | 48,958 | 16.7 |
| Stafford County | 43,978 | 52,793 | 20.0 | 41,769 | 50,869 | 21.8 |
| Warren County | 16,034 | 16,739 | 4.4 | 14,085 | 15,322 | 8.8 |

Source: Decennial census data compiled by Urban-Greater DC.

Consistent with regional trends, most of the growth in the Virginia counties and cities was in the adult population. These areas added more than 323,000 adults ages 18 and older between 2010 and 2020, compared with 63,800 children younger than 18 (table 16). Put differently, about 5.1 additional adults for every 1 child were added to the region's Virginia counties and cities this past decade. Clarke, Madison, Rappahannock, and Warren Counties actually had net decreases in their child populations.

The largest increase in children was in Loudoun County (22,700 more children), followed by Prince William County $(12,600)$ and Arlington County $(9,500)$.

TABLE 16
Child and Adult Populations for Virginia Counties and Cities in the Greater DC Region, 2010 and 2020

| Jurisdiction | 2010 |  |  | 2020 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | $\begin{gathered} \hline \text { Children } \\ <18 \\ \hline \end{gathered}$ | Adults 18+ | Total | Children <18 | Adults 18+ |
| Total | 2,690,449 | 674,583 | 2,015,866 | 3,077,537 | 738,420 | 2,339,117 |
| Alexandria | 139,966 | 23,970 | 115,996 | 159,467 | 29,433 | 130,034 |
| Arlington County | 207,627 | 32,626 | 175,001 | 238,643 | 42,080 | 196,563 |
| Clarke County | 14,034 | 3,221 | 10,813 | 14,783 | 2,890 | 11,893 |
| Culpeper County | 46,689 | 12,085 | 34,604 | 52,552 | 12,649 | 39,903 |
| Fairfax County | 1,081,726 | 262,648 | 819,078 | 1,150,309 | 268,203 | 882,106 |
| Fairfax | 22,565 | 4,592 | 17,973 | 24,146 | 4,703 | 19,443 |
| Falls Church | 12,332 | 3,047 | 9,285 | 14,658 | 3,609 | 11,049 |
| Fauquier County | 65,203 | 16,445 | 48,758 | 72,972 | 16,868 | 56,104 |
| Fredericksburg | 24,286 | 4,779 | 19,507 | 27,982 | 5,733 | 22,249 |
| Loudoun County | 312,311 | 95,434 | 216,877 | 420,959 | 118,167 | 302,792 |
| Madison County | 13,308 | 2,970 | 10,338 | 13,837 | 2,915 | 10,922 |
| Manassas Park | 14,273 | 4,059 | 10,214 | 17,219 | 4,518 | 12,701 |
| Manassas | 37,821 | 10,747 | 27,074 | 42,772 | 11,112 | 31,660 |
| Prince William County | 402,002 | 116,175 | 285,827 | 482,204 | 128,802 | 353,402 |
| Rappahannock County | 7,373 | 1,465 | 5,908 | 7,348 | 1,209 | 6,139 |
| Spotsylvania County | 122,397 | 34,043 | 88,354 | 140,032 | 34,676 | 105,356 |
| Stafford County | 128,961 | 37,197 | 91,764 | 156,927 | 41,867 | 115,060 |
| Warren County | 37,575 | 9,080 | 28,495 | 40,727 | 8,986 | 31,741 |

Source: Decennial census data compiled by Urban-Greater DC.

Growth over the past decade in the Virginia counties and cities in the Greater DC region was driven largely by increases in the non-Hispanic/Latinx Asian and Pacific Islander population and Hispanic/Latinx population. The non-Hispanic/Latinx Asian and Pacific Islander population grew by almost 154,000 (44 percent) between 2010 and 2020, and at about 506,000 it remained the thirdlargest group overall in the Virginia counties and cities (table 17 and appendix C). The largest nonHispanic/Latinx Asian and Pacific Islander population was in Fairfax County, which grew from about 210,000 in 2010 to 264,000 in 2020. The non-Hispanic/Latinx Asian and Pacific Islander population in Loudoun County almost doubled in size, growing from 51,700 to 100,000.

TABLE 17

## Population by Race/Ethnicity for Virginia Counties and Cities in the Greater DC Region, 2020

| Jurisdiction | Hispanic/ Latinx | NH Am. Indian and AK Native | NH Asian and PI | NH Black | NH some other race | NH white |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total | 542,291 | 4,929 | 506,098 | 417,658 | 19,372 | 1,587,189 |
| Alexandria | 29,372 | 218 | 14,609 | 33,927 | 1,026 | 80,315 |
| Arlington County | 37,362 | 269 | 33,264 | 23,467 | 1,491 | 142,790 |
| Clarke County | 887 | 37 | 328 | 741 | 89 | 12,701 |
| Culpeper County | 7,509 | 110 | 1,165 | 7,715 | 233 | 35,820 |
| Fairfax County | 199,234 | 1,476 | 264,340 | 123,249 | 7,046 | 554,964 |
| Fairfax | 4,278 | 44 | 5,058 | 1,305 | 204 | 13,257 |
| Falls Church | 1,529 | 12 | 2,033 | 736 | 117 | 10,231 |
| Fauquier County | 7,793 | 129 | 2,023 | 6,264 | 339 | 56,424 |
| Fredericksburg | 3,472 | 86 | 1,780 | 6,780 | 280 | 15,584 |
| Loudoun County | 59,744 | 542 | 100,259 | 35,654 | 2,425 | 222,335 |
| Madison County | 441 | 14 | 150 | 1,356 | 53 | 11,823 |
| Manassas Park | 7,799 | 27 | 2,013 | 2,379 | 133 | 4,868 |
| Manassas | 18,345 | 68 | 3,156 | 5,612 | 317 | 15,274 |
| Prince William County | 121,524 | 760 | 60,093 | 105,769 | 3,384 | 190,674 |
| Rappahannock County | 289 | 17 | 109 | 275 | 30 | 6,628 |
| Spotsylvania County | 16,654 | 382 | 5,778 | 26,182 | 845 | 90,191 |
| Stafford County | 23,646 | 607 | 9,160 | 33,887 | 1,105 | 88,522 |
| Warren County | 2,413 | 131 | 780 | 2,360 | 255 | 34,788 |

Source: Decennial census data compiled by Urban-Greater DC.
Notes: NH = non-Hispanic/Latinx; Am. = American; AK = Alaska; PI = Pacific Islander. Non-Hispanic/Latinx people who selected more than one race on the census form were assigned to single-race groups, using a method described in appendix $F$, so that the individual race and ethnic groups sum to the total population. The multiracial population was 5.2 percent of the total population in these Virginia counties and cities in 2020.

The Hispanic/Latinx population grew second fastest in the Virginia counties and cities, increasing by more than 144,000 ( 36 percent) since 2010 to remain the second-largest group at 542,000. Prince William County had the largest increase in the Hispanic/Latinx population, increasing by about 40,100. The second-fastest growth was in Fairfax County, where Hispanic/Latinx people increased by about 30,800.

The non-Hispanic/Latinx Black population in the Virginia counties and cities in the Greater DC region increased by 75,600 between 2010 and 2020. The Hispanic/Latinx population includes people who also identified as Black but are not part of the Black population in table 17. Including people who are Black Hispanic/Latinx would bring the Black population in the Virginia counties and cities to more than 441,000. The largest growth in the non-Hispanic/Latinx Black population was in Prince William County (+20,400), Fairfax County (+18,500), and Stafford County (+10,500).

The non-Hispanic/Latinx white population remained the largest group in the Virginia counties and cities in the Greater DC region, at more than 1.58 million, but the size of this population grew by only

2,000 ( 0.1 percent) during the past decade. Fairfax County saw a large decrease in the nonHispanic/Latinx white population, which fell by 38,400, while Prince William County's white population decreased by 6,300 . In contrast, the non-Hispanic/Latinx white population increased in Loudoun County ( $+26,700$ ), Arlington County ( $+9,300$ ), and Alexandria ( $+5,100$ ).

The largest non-Hispanic/Latinx American Indian and Alaska Native and some other race populations were in Fairfax County.

## West Virginia

Only one West Virginia county is part of the Greater DC region. Located about 60 miles from the District of Columbia, Jefferson County had a 2020 population of 57,700 , a 7.9 percent increase from 2010 (table 18). Housing unit growth was similar at 7.8 percent, but households increased faster at 9.9 percent. Household growth represents additional demand for housing units, and if housing supply does not keep pace housing costs can rise, which may exacerbate affordability problems.

TABLE 18
Population, Housing Units, and Households in Jefferson County, West Virginia, 2010 and 2020

| Jurisdiction | Population |  | Change (\%) | Housing Units |  | Change <br> (\%) | Households |  | Change(\%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2010 | 2020 |  | 2010 | 2020 |  | 2010 | 2020 |  |
| Jefferson County | 53,498 | 57,701 | 7.9 | 22,037 | 23,762 | 7.8 | 19,931 | 21,902 | 9.9 |

Source: Decennial census data compiled by Urban-Greater DC.

Consistent with regional trends, most of the growth in Jefferson County was in the adult population, which grew from 40,800 to almost 45,000 over the past decade (table 19 and appendix D). In contrast, the child population of the county barely increased at all.

TABLE 19
Child and Adult Populations for Jefferson County, West Virginia, 2010 and 2020

|  | 2010 |  |  | 2020 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Children | Adults |  | Children | Adults |
| Jurisdiction | Total | $<18$ | $18+$ | Total | $<18$ | $18+$ |
| Jefferson County | 53,498 | 12,704 | 40,794 | 57,701 | 12,736 | 44,965 |

Source: Decennial census data compiled by Urban-Greater DC.

Jefferson County is predominantly non-Hispanic/Latinx white, with 82 percent of the people living in the county identifying with that racial/ethnic group, a slight decline from 86 percent in 2010 (table 20
and appendix D). The non-Hispanic/Latinx white population grew by about 1,400 over the past decade, but growth in other racial and ethnic populations has made the county more diverse in 2020. The largest growth was in the Hispanic/Latinx population, which increased by more than 1,600 . The county's non-Hispanic/Latinx Black population was the second largest overall in 2020 at 4,600, increasing from 4,100 in 2010. The Hispanic/Latinx population includes people who also identified as Black but are not part of the Black population in table 20. Including people who are Black Hispanic/Latinx would bring Jefferson County's Black population to about 4,800 in 2020.

TABLE 20
Population by Race/Ethnicity for Jefferson County, West Virginia, 2020

| Jurisdiction | Hispanic/ Latinx | NH Am. Indian and AK Native | NH Asian and PI | NH Black | NH some other race | NH white |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jefferson County | 4,137 | 104 | 1,365 | 4,565 | 304 | 47,226 |

Source: Decennial census data compiled by Urban-Greater DC.
Notes: NH = non-Hispanic/Latinx; Am. = American; AK = Alaska; PI = Pacific Islander. Non-Hispanic/Latinx people who selected more than one race on the census form were assigned to single-race groups, using a method described in appendix $F$, so that the individual race and ethnic groups sum to the total population. The multiracial population was 8.2 percent of the total population in Jefferson County in 2020.

## Appendix A. District of Columbia Charts

The maximum and minimum estimates, indicated by the error bars on the charts in appendices $A$ through $D$, are based on people who chose a race by itself or in combination with any other race or races and people who chose only that race alone, respectively. The middle estimate, indicated by the dotted line on the charts and used in the main tables of this report, assigns people to mutually exclusive racial groups based on a methodology described in detail in appendix F.

All of the following charts display decennial census data compiled by Urban-Greater DC.

FIGURE A. 1
Adult and Child Populations, Ward 1, DC, 2000-20
$\square$ Adults 18 and older Children younger than 18


FIGURE A. 5
Adult and Child Populations, Ward 5, DC, 2000-20

- Adults 18 and older Children younger than 18


FIGURE A. 2
Adult and Child Populations, Ward 2, DC, 2000-20
$\square$ Adults 18 and older Children younger than 18


FIGURE A. 3
Adult and Child Populations, Ward 3, DC, 2000-20
$\square$ Adults 18 and older Children younger than 18


FIGURE A. 6
Adult and Child Populations, Ward 6, DC, 2000-20
$\square$ Adults 18 and older Children younger than 18


FIGURE A. 7
Adult and Child Populations, Ward 7, DC, 2000-20

- Adults 18 and older Children younger than 18


FIGURE A. 8
Adult and Child Populations, Ward 8, DC, 2000-20
$\square$ Adults 18 and older Children younger than 18



FIGURE A. 11
Hispanic/Latinx Population, Ward 2, DC, 2000-20


FIGURE A. 12


FIGURE A. 13
Hispanic/Latinx Population, Ward 4, DC, 2000-20


FIGURE A. 14
Hispanic/Latinx Population, Ward 5, DC, 2000-20


FIGURE A. 15
Hispanic/Latinx Population, Ward 6, DC, 2000-20


FIGURE A. 16
Hispanic/Latinx Population, Ward 7, DC, 2000-20


FIGURE A. 17
Hispanic/Latinx Population, Ward 8, DC, 2000-20



FIGURE A. 19
Percentage Hispanic/Latinx Population, Ward 2,
DC, 2000-20


FIGURE A. 20
Percentage Hispanic/Latinx Population, Ward 3, DC, 2000-20


FIGURE A. 21
Percentage Hispanic/Latinx Population, Ward 4,


FIGURE A. 22
Percentage Hispanic/Latinx Population, Ward 5,
DC, 2000-20


FIGURE A. 23
Percentage Hispanic/Latinx Population, Ward 6,
DC, 2000-20


FIGURE A. 24
Percentage Hispanic/Latinx Population, Ward 7,
DC, 2000-20


FIGURE A. 25
Percentage Hispanic/Latinx Population, Ward 8,
DC, 2000-20


FIGURE A. 26
Percentage Hispanic/Latinx Population, Total, DC, 2000-20


FIGURE A. 27
Non-Hispanic/Latinx American Indian \& Alaska


FIGURE A. 28
Non-Hispanic/Latinx American Indian \& Alaska
Native Population, Ward 2, DC, 2000-20


FIGURE A. 29
Non-Hispanic/Latinx American Indian \& Alaska


FIGURE A. 30
Non-Hispanic/Latinx American Indian \& Alaska Native Population, Ward 4, DC, 2000-20


FIGURE A. 31
Non-Hispanic/Latinx American Indian \& Alaska


FIGURE A. 32
Non-Hispanic/Latinx American Indian \& Alaska
Native Population, Ward 6, DC, 2000-20


FIGURE A. 33
Non-Hispanic/Latinx American Indian \& Alaska Native Population, Ward 7, DC, 2000-20


FIGURE A. 34
Non-Hispanic/Latinx American Indian \& Alaska
Native Population, Ward 8, DC, 2000-20


FIGURE A. 35
Percentage Non-Hispanic/Latinx American Indian \& Alaska Native Population, Ward 1, DC, 2000-20


FIGURE A. 36
Percentage Non-Hispanic/Latinx American Indian \& Alaska Native Population, Ward 2, DC, 2000-20


FIGURE A. 37
Percentage Non-Hispanic/Latinx American Indian \& Alaska Native Population, Ward 3, DC, 2000-20


FIGURE A. 38
Percentage Non-Hispanic/Latinx American Indian \& Alaska Native Population, Ward 4, DC, 2000-20


FIGURE A. 39
Percentage Non-Hispanic/Latinx American Indian \& Alaska Native Population, Ward 5, DC, 2000-20


FIGURE A. 40
Percentage Non-Hispanic/Latinx American Indian \& Alaska Native Population, Ward 6, DC, 2000-20


FIGURE A. 43
Percentage Non-Hispanic/Latinx American Indian \& Alaska Native Population, Total, DC, 2000-20


FIGURE A. 44
Non-Hispanic/Latinx Asian \& Pacific Islander


FIGURE A. 45
Non-Hispanic/Latinx Asian \& Pacific Islander
Population, Ward 2, DC, 2000-20


FIGURE A. 46


FIGURE A. 47
Non-Hispanic/Latinx Asian \& Pacific Islander
Population, Ward 4, DC, 2000-20


FIGURE A. 48
Non-Hispanic/Latinx Asian \& Pacific Islander


FIGURE A. 49
Non-Hispanic/Latinx Asian \& Pacific Islander
Population, Ward 6, DC, 2000-20


FIGURE A. 50
Non-Hispanic/Latinx Asian \& Pacific Islander


FIGURE A. 51
Non-Hispanic/Latinx Asian \& Pacific Islander
Population, Ward 8, DC, 2000-20


FIGURE A. 52
Percentage Non-Hispanic/Latinx Asian \& Pacific


FIGURE A. 53
Percentage Non-Hispanic/Latinx Asian \& Pacific Islander Population, Ward 2, DC, 2000-20


FIGURE A. 54
Percentage Non-Hispanic/Latinx Asian \& Pacific Islander Population, Ward 3, DC, 2000-20


FIGURE A. 55
Percentage Non-Hispanic/Latinx Asian \& Pacific


FIGURE A. 56
Percentage Non-Hispanic/Latinx Asian \& Pacific Islander Population, Ward 5, DC, 2000-20


FIGURE A. 60


FIGURE A. 57
Percentage Non-Hispanic/Latinx Asian \& Pacific Islander Population, Ward 6, DC, 2000-20


FIGURE A. 58
Percentage Non-Hispanic/Latinx Asian \& Pacific Islander Population, Ward 7, DC, 2000-20


FIGURE A. 59
Percentage Non-Hispanic/Latinx Asian \& Pacific Islander Population, Ward 8, DC, 2000-20



FIGURE A. 62
Non-Hispanic/Latinx Black Population, Ward 2,
DC, 2000-20

FIGURE A. 63
Non-Hispanic/Latinx Black Population, Ward 3,
DC, 2000-20


FIGURE A. 64
Non-Hispanic/Latinx Black Population, Ward 4,
DC, 2000-20


FIGURE A. 65
Non-Hispanic/Latinx Black Population, Ward 5,
DC, 2000-20


FIGURE A. 66
Non-Hispanic/Latinx Black Population, Ward 6,


FIGURE A. 67
Non-Hispanic/Latinx Black Population, Ward 7,
DC, 2000-20


FIGURE A. 68
Non-Hispanic/Latinx Black Population, Ward 8,
DC, 2000-20



FIGURE A. 70
Percentage Non-Hispanic/Latinx Black Population,
Ward 2, DC, 2000-20



FIGURE A. 72
Percentage Non-Hispanic/Latinx Black Population,


FIGURE A. 73
Percentage Non-Hispanic/Latinx Black Population,
Ward 5, DC, 2000-20


FIGURE A. 77


FIGURE A. 74
Percentage Non-Hispanic/Latinx Black Population, Ward 6, DC, 2000-20


FIGURE A. 75
Percentage Non-Hispanic/Latinx Black Population, Ward 7, DC, 2000-20


FIGURE A. 76
Percentage Non-Hispanic/Latinx Black Population, Ward 8, DC, 2000-20


FIGURE A. 78
Non-Hispanic/Latinx Some Other Race Population,


FIGURE A. 79
Non-Hispanic/Latinx Some Other Race Population,
Ward 2, DC, 2000-20


FIGURE A. 80
Non-Hispanic/Latinx Some Other Race Population,


FIGURE A. 81
Non-Hispanic/Latinx Some Other Race Population,
Ward 4, DC, 2000-20


FIGURE A. 82
Non-Hispanic/Latinx Some Other Race Population,


FIGURE A. 83
Non-Hispanic/Latinx Some Other Race Population, Ward 6, DC, 2000-20


FIGURE A. 84
Non-Hispanic/Latinx Some Other Race Population,


FIGURE A. 85
Non-Hispanic/Latinx Some Other Race Population,
Ward 8, DC, 2000-20



FIGURE A. 87
Percentage Non-Hispanic/Latinx Some Other
Race Population, Ward 2, DC, 2000-20


FIGURE A. 88
Percentage Non-Hispanic/Latinx Some Other
Race Population, Ward 3, DC, 2000-20


FIGURE A. 89
Percentage Non-Hispanic/Latinx Some Other
Race Population, Ward 4, DC, 2000-20


FIGURE A. 90


FIGURE A. 94


FIGURE A. 91
Percentage Non-Hispanic/Latinx Some Other
Race Population, Ward 6, DC, 2000-20


FIGURE A. 92
Percentage Non-Hispanic/Latinx Some Other
Race Population, Ward 7, DC, 2000-20


FIGURE A. 93
Percentage Non-Hispanic/Latinx Some Other
Race Population, Ward 8, DC, 2000-20


FIGURE A. 95
Non-Hispanic/Latinx White Population, Ward 1, DC, 2000-20


FIGURE A. 96
Non-Hispanic/Latinx White Population, Ward 2,
DC, 2000-20


FIGURE A. 97
Non-Hispanic/Latinx White Population, Ward 3,
DC, 2000-20


FIGURE A. 98
Non-Hispanic/Latinx White Population, Ward 4,
DC, 2000-20


FIGURE A. 99
Non-Hispanic/Latinx White Population, Ward 5,
DC, 2000-20


FIGURE A. 100
Non-Hispanic/Latinx White Population, Ward 6,
DC, 2000-20


FIGURE A. 101
Non-Hispanic/Latinx White Population, Ward 7,
DC, 2000-20


FIGURE A. 102
Non-Hispanic/Latinx White Population, Ward 8,
DC, 2000-20
20,000-0

FIGURE A. 103
Percentage Non-Hispanic/Latinx White
Population, Ward 1, DC, 2000-20


FIGURE A. 104
Percentage Non-Hispanic/Latinx White
Population, Ward 2, DC, 2000-20


FIGURE A. 105
Percentage Non-Hispanic/Latinx White
Population, Ward 3, DC, 2000-20


FIGURE A. 106


FIGURE A. 107
Percentage Non-Hispanic/Latinx White
Population, Ward 5, DC, 2000-20


FIGURE A. 108
Percentage Non-Hispanic/Latinx White
Population, Ward 6, DC, 2000-20


FIGURE A. 109
Percentage Non-Hispanic/Latinx White
Population, Ward 7, DC, 2000-20


FIGURE A. 110
Percentage Non-Hispanic/Latinx White
Population, Ward 8, DC, 2000-20


FIGURE A. 111


## Appendix B. Maryland Charts

The maximum and minimum estimates, indicated by the error bars on the charts in appendices A through $D$, are based on people who chose a race by itself or in combination with any other race or races and people who chose only that race alone, respectively. The middle estimate, indicated by the dotted line on the charts and used in the main tables of this report, assigns people to mutually exclusive racial groups based on a methodology described in detail in appendix F.

All of the following charts display decennial census data compiled by Urban-Greater DC.

FIGURE B. 1
Adult and Child Populations, Calvert County, MD, 2000-20
$\square$ Adults 18 and older Children younger than 18


FIGURE B. 5
Adult and Child Populations, Prince George's
County, MD, 2000-20
$\square$ Adults 18 and older Children younger than 18


FIGURE B. 2
Adult and Child Populations, Charles County, MD, 2000-20
$\square$ Adults 18 and older $\square$ Children younger than 18


FIGURE B. 3
Adult and Child Populations, Frederick County, MD, 2000-20
$\square$ Adults 18 and older Children younger than 18


FIGURE B. 4
Adult and Child Populations, Montgomery County, MD, 2000-20
$\square$ Adults 18 and older Children younger than 18


FIGURE B. 6
Hispanic/Latinx Population, Calvert County, MD, 2000-20


FIGURE B. 10
Hispanic/Latinx Population, Prince George's
County, MD, 2000-20


FIGURE B. 7
Hispanic/Latinx Population, Charles County, MD,
2000-20
200,000-1

FIGURE B. 8
Hispanic/Latinx Population, Frederick County,


FIGURE B. 9
Hispanic/Latinx Population, Montgomery County,
MD, 2000-20



FIGURE B. 12
Percentage Hispanic/Latinx Population, Charles County, MD, 2000-20


FIGURE B. 13
Percentage Hispanic/Latinx Population, Frederick
County, MD, 2000-20


FIGURE B. 14
Percentage Hispanic/Latinx Population,
Montgomery County, MD, 2000-20


FIGURE B. 15
Percentage Hispanic/Latinx Population, Prince
George's County, MD, 2000-20


FIGURE B. 16
Non-Hispanic/Latinx American Indian \& Alaska
Native Population, Calvert County, MD, 2000-20


FIGURE B. 20
Non-Hispanic/Latinx American Indian \& Alaska Native Population, Prince George's County, MD, 2000-20


FIGURE B. 17
Non-Hispanic/Latinx American Indian \& Alaska
Native Population, Charles County, MD, 2000-20


FIGURE B. 18
Non-Hispanic/Latinx American Indian \& Alaska Native Population, Frederick County, MD, 200020


FIGURE B. 19
Non-Hispanic/Latinx American Indian \& Alaska Native Population, Montgomery County, MD,
2000-20


FIGURE B. 21
Percentage Non-Hispanic/Latinx American Indian \& Alaska Native Population, Calvert County, MD, 2000-20


FIGURE B. 22
Percentage Non-Hispanic/Latinx American Indian \& Alaska Native Population, Charles County, MD, 2000-20


FIGURE B. 23
Percentage Non-Hispanic/Latinx American Indian \& Alaska Native Population, Frederick County,
MD, 2000-20


FIGURE B. 24
Percentage Non-Hispanic/Latinx American Indian \& Alaska Native Population, Montgomery County,
MD, 2000-20


FIGURE B. 25
Percentage Non-Hispanic/Latinx American Indian
\& Alaska Native Population, Prince George's
County, MD, 2000-20


FIGURE B. 26
Non-Hispanic/Latinx Asian \& Pacific Islander


FIGURE B. 30
Non-Hispanic/Latinx Asian \& Pacific Islander


FIGURE B. 27
Non-Hispanic/Latinx Asian \& Pacific Islander
Population, Charles County, MD, 2000-20


FIGURE B. 28
Non-Hispanic/Latinx Asian \& Pacific Islander
Population, Frederick County, MD, 2000-20


FIGURE B. 29
Non-Hispanic/Latinx Asian \& Pacific Islander
Population, Montgomery County, MD, 2000-20


FIGURE B. 31
Percentage Non-Hispanic/Latinx Asian \& Pacific Islander Population, Calvert County, MD, 2000-20


## FIGURE B. 35

Percentage Non-Hispanic/Latinx Asian \& Pacific Islander Population, Prince George's County, MD, 2000-20


FIGURE B. 32
Percentage Non-Hispanic/Latinx Asian \& Pacific Islander Population, Charles County, MD, 200020


FIGURE B. 33
Percentage Non-Hispanic/Latinx Asian \& Pacific Islander Population, Frederick County, MD, 200020


FIGURE B. 34
Percentage Non-Hispanic/Latinx Asian \& Pacific Islander Population, Montgomery County, MD, 2000-20



FIGURE B. 40
Non-Hispanic/Latinx Black Population, Prince


FIGURE B. 37
Non-Hispanic/Latinx Black Population, Charles
County, MD, 2000-20


FIGURE B. 38
Non-Hispanic/Latinx Black Population, Frederick
County, MD, 2000-20


FIGURE B. 39
Non-Hispanic/Latinx Black Population,
Montgomery County, MD, 2000-20
600,000
$500,000-$
$400,000-$
$300,000-$
200,000
100,000

FIGURE B. 41
Percentage Non-Hispanic/Latinx Black Population,
Calvert County, MD, 2000-20


FIGURE B. 45
Percentage Non-Hispanic/Latinx Black Population,
Prince George's County, MD, 2000-20


FIGURE B. 42
Percentage Non-Hispanic/Latinx Black Population, Charles County, MD, 2000-20


FIGURE B. 43
Percentage Non-Hispanic/Latinx Black Population,
Frederick County, MD, 2000-20


FIGURE B. 44
Percentage Non-Hispanic/Latinx Black Population,


FIGURE B. 46
Non-Hispanic/Latinx Some Other Race Population,
Calvert County, MD, 2000-20


FIGURE B. 50
Non-Hispanic/Latinx Some Other Race Population,


FIGURE B. 47
Non-Hispanic/Latinx Some Other Race Population,
Charles County, MD, 2000-20


FIGURE B. 48
Non-Hispanic/Latinx Some Other Race Population,
Frederick County, MD, 2000-20


FIGURE B. 49
Non-Hispanic/Latinx Some Other Race Population, Montgomery County, MD, 2000-20


| FIGURE B. 51 <br> Percentage Non-Hispanic/Latinx Some Other <br> Race Population, Calvert County, MD, 2000-20 | FIGURE B. 55 <br> Percentage Non-Hispanic/Latinx Some Other <br> Race Population, Prince George's County, MD, <br> $2000-20$ |
| :--- | :--- |
| $1.5 \%$ |  |
| $1.0 \%$ |  |

FIGURE B. 52
Percentage Non-Hispanic/Latinx Some Other


FIGURE B. 53
Percentage Non-Hispanic/Latinx Some Other
Race Population, Frederick County, MD, 2000-20


FIGURE B. 54
Percentage Non-Hispanic/Latinx Some Other
Race Population, Montgomery County, MD, 2000-
20



FIGURE B. 57
Non-Hispanic/Latinx White Population, Charles
County, MD, 2000-20


FIGURE B. 58
Non-Hispanic/Latinx White Population, Frederick
County, MD, 2000-20


FIGURE B. 59
Non-Hispanic/Latinx White Population,
Montgomery County, MD, 2000-20


FIGURE B. 60
Non-Hispanic/Latinx White Population, Prince



FIGURE B. 62
Percentage Non-Hispanic/Latinx White


FIGURE B. 63
Percentage Non-Hispanic/Latinx White


FIGURE B. 64
Percentage Non-Hispanic/Latinx White



Population, Prince George's County, MD, 2000-20

## Appendix C. Virginia Charts

The maximum and minimum estimates, indicated by the error bars on the charts in appendices A through $D$, are based on people who chose a race by itself or in combination with any other race or races and people who chose only that race alone, respectively. The middle estimate, indicated by the dotted line on the charts and used in the main tables of this report, assigns people to mutually exclusive racial groups based on a methodology described in detail in appendix F.

All of the following charts display decennial census data compiled by Urban-Greater DC.

FIGURE C. 1
Adult and Child Populations, Alexandria city, VA, 2000-20
$\square$ Adults 18 and older Children younger than 18


FIGURE C. 5
Adult and Child Populations, Fairfax County, VA, 2000-20
$\square$ Adults 18 and older Children younger than 18


FIGURE C. 9
Adult and Child Populations, Fredericksburg city, VA, 2000-20

- Adults 18 and older Children younger than 18


FIGURE C. 10
Adult and Child Populations, Loudoun County, VA, 2000-20
$\square$ Adults 18 and older Children younger than 18


FIGURE C. 11
Adult and Child Populations, Madison County, VA, 2000-20

- Adults 18 and older Children younger than 18


FIGURE C. 12
Adult and Child Populations, Manassas Park city, VA, 2000-20
$\square$ Adults 18 and older $\square$ Children younger than 18


FIGURE C. 13
Adult and Child Populations, Manassas city, VA, 2000-20
$\square$ Adults 18 and older Children younger than 18


FIGURE C. 17
Adult and Child Populations, Stafford County, VA, 2000-20

- Adults 18 and older Children younger than 18


FIGURE C. 14
Adult and Child Populations, Prince William County, VA, 2000-20

- Adults 18 and older Children younger than 18


FIGURE C. 18
Adult and Child Populations, Warren County, VA, 2000-20

- Adults 18 and older Children younger than 18

FIGURE C. 15
Adult and Child Populations, Rappahannock County, VA, 2000-20
$\square$ Adults 18 and older Children younger than 18


FIGURE C. 16
Adult and Child Populations, Spotsylvania County, VA, 2000-20

- Adults 18 and older Children younger than 18






FIGURE C. 23
Hispanic/Latinx Population, Fairfax County, VA, 2000-20


FIGURE C. 24
Hispanic/Latinx Population, Fairfax city, VA,
2000-20
200,000-150,000-1

FIGURE C. 25
Hispanic/Latinx Population, Falls Church city, VA, 2000-20


FIGURE C. 26


FIGURE C. 27
Hispanic/Latinx Population, Fredericksburg city,
VA, 2000-20
200,000
150,000
$100,000-$

FIGURE C. 28
Hispanic/Latinx Population, Loudoun County, VA, 2000-20


FIGURE C. 29


FIGURE C. 30



FIGURE C. 32


FIGURE C. 33
Hispanic/Latinx Population, Rappahannock
County, VA, 2000-20


FIGURE C. 34
Hispanic/Latinx Population, SpotsyIvania County,
VA, 2000-20


FIGURE C. 35
Hispanic/Latinx Population, Stafford County, VA,


FIGURE C. 36
Hispanic/Latinx Population, Warren County, VA, 2000-20



FIGURE C. 38
Percentage Hispanic/Latinx Population, Arlington County, VA, 2000-20


FIGURE C. 39
Percentage Hispanic/Latinx Population, Clarke County, VA, 2000-20


FIGURE C. 40
Percentage Hispanic/Latinx Population, Culpeper
County, VA, 2000-20


FIGURE C. 41
Percentage Hispanic/Latinx Population, Fairfax


FIGUREC. 42


FIGURE C. 43
Percentage Hispanic/Latinx Population, Falls



FIGURE C. 45


FIGURE C. 46
Percentage Hispanic/Latinx Population, Loudoun County, VA, 2000-20


FIGURE C. 47


FIGURE C. 48
Percentage Hispanic/Latinx Population, Manassas
Park city, VA, 2000-20



FIGURE C. 50
Percentage Hispanic/Latinx Population, Prince
William County, VA, 2000-20


FIGURE C. 53
Percentage Hispanic/Latinx Population, Stafford


FIGUREC. 54
Percentage Hispanic/Latinx Population, Warren
County, VA, 2000-20


FIGURE C. 51
Percentage Hispanic/Latinx Population,


FIGURE C. 52
Percentage Hispanic/Latinx Population,


FIGURE C. 55
Non-Hispanic/Latinx American Indian \& Alaska


FIGURE C. 56
Non-Hispanic/Latinx American Indian \& Alaska
Native Population, Arlington County, VA, 2000-20


FIGURE C. 57


FIGURE C. 58


FIGURE C. 59
Non-Hispanic/Latinx American Indian \& Alaska Native Population, Fairfax County, VA, 2000-20


FIGURE C. 63

FIGURE C. 60
Non-Hispanic/Latinx American Indian \& Alaska
Native Population, Fairfax city, VA, 2000-20


FIGURE C. 61
Non-Hispanic/Latinx American Indian \& Alaska Native Population, Falls Church city, VA, 2000-20


FIGURE C. 62
Non-Hispanic/Latinx American Indian \& Alaska
Native Population, Fauquier County, VA, 2000-20



FIGURE C. 64
Non-Hispanic/Latinx American Indian \& Alaska
Native Population, Loudoun County, VA, 2000-20


FIGURE C. 65
Non-Hispanic/Latinx American Indian \& Alaska Native Population, Madison County, VA, 2000-20


FIGURE C. 66
Non-Hispanic/Latinx American Indian \& Alaska
Native Population, Manassas Park city, VA, 200020



FIGURE C. 68
Non-Hispanic/Latinx American Indian \& Alaska Native Population, Prince William County, VA, 2000-20


FIGURE C. 71
Non-Hispanic/Latinx American Indian \& Alaska


FIGURE C. 72


FIGURE C. 69
Non-Hispanic/Latinx American Indian \& Alaska Native Population, Rappahannock County, VA, 2000-20


FIGURE C. 70
Non-Hispanic/Latinx American Indian \& Alaska
Native Population, Spotsylvania County, VA,
2000-20


FIGURE C. 73
Percentage Non-Hispanic/Latinx American Indian \& Alaska Native Population, Alexandria city, VA, 2000-20


FIGURE C. 74
Percentage Non-Hispanic/Latinx American Indian \& Alaska Native Population, Arlington County, VA, 2000-20


FIGURE C. 75
Percentage Non-Hispanic/Latinx American Indian \& Alaska Native Population, Clarke County, VA, 2000-20


FIGURE C. 76
Percentage Non-Hispanic/Latinx American Indian \& Alaska Native Population, Culpeper County, VA, 2000-20


FIGURE C. 77
Percentage Non-Hispanic/Latinx American Indian \& Alaska Native Population, Fairfax County, VA, 2000-20


FIGURE C. 78
Percentage Non-Hispanic/Latinx American Indian
\& Alaska Native Population, Fairfax city, VA,
2000-20


FIGURE C. 79
Percentage Non-Hispanic/Latinx American Indian \& Alaska Native Population, Falls Church city, VA, 2000-20


FIGURE C. 80
Percentage Non-Hispanic/Latinx American Indian \& Alaska Native Population, Fauquier County, VA, 2000-20


FIGURE C. 81
Percentage Non-Hispanic/Latinx American Indian \& Alaska Native Population, Fredericksburg city, VA, 2000-20


FIGURE C. 82
Percentage Non-Hispanic/Latinx American Indian \& Alaska Native Population, Loudoun County, VA, 2000-20


FIGURE C. 83
Percentage Non-Hispanic/Latinx American Indian \& Alaska Native Population, Madison County, VA, 2000-20


FIGURE C. 84
Percentage Non-Hispanic/Latinx American Indian \& Alaska Native Population, Manassas Park city, VA, 2000-20



FIGURE C. 86
Percentage Non-Hispanic/Latinx American Indian \& Alaska Native Population, Prince William County, VA, 2000-20


FIGURE C. 89
Percentage Non-Hispanic/Latinx American Indian \& Alaska Native Population, Stafford County, VA, 2000-20


FIGURE C. 90
Percentage Non-Hispanic/Latinx American Indian \& Alaska Native Population, Warren County, VA, 2000-20


FIGURE C. 87
Percentage Non-Hispanic/Latinx American Indian
\& Alaska Native Population, Rappahannock
County, VA, 2000-20


FIGURE C. 88
Percentage Non-Hispanic/Latinx American Indian \& Alaska Native Population, Spotsylvania County, VA, 2000-20


FIGURE C. 91
Non-Hispanic/Latinx Asian \& Pacific Islander
Population, Alexandria city, VA, 2000-20


FIGURE C. 92
Non-Hispanic/Latinx Asian \& Pacific Islander
Population, Arlington County, VA, 2000-20


FIGURE C. 93
Non-Hispanic/Latinx Asian \& Pacific Islander Population, Clarke County, VA, 2000-20


FIGURE C. 94
Non-Hispanic/Latinx Asian \& Pacific Islander Population, Culpeper County, VA, 2000-20


FIGURE C. 95
Non-Hispanic/Latinx Asian \& Pacific Islander Population, Fairfax County, VA, 2000-20


FIGURE C. 96
Non-Hispanic/Latinx Asian \& Pacific Islander Population, Fairfax city, VA, 2000-20


FIGURE C. 97
Non-Hispanic/Latinx Asian \& Pacific Islander
Population, Falls Church city, VA, 2000-20


FIGURE C. 98
Non-Hispanic/Latinx Asian \& Pacific Islander
Population, Fauquier County, VA, 2000-20


FIGURE C. 99
Non-Hispanic/Latinx Asian \& Pacific Islander
Population, Fredericksburg city, VA, 2000-20


FIGURE C. 100
Non-Hispanic/Latinx Asian \& Pacific Islander
Population, Loudoun County, VA, 2000-20


FIGURE C. 101
Non-Hispanic/Latinx Asian \& Pacific Islander
Population, Madison County, VA, 2000-20


FIGURE C. 102
Non-Hispanic/Latinx Asian \& Pacific Islander
Population, Manassas Park city, VA, 2000-20


FIGURE C. 103
Non-Hispanic/Latinx Asian \& Pacific Islander
Population, Manassas city, VA, 2000-20


FIGURE C. 104
Non-Hispanic/Latinx Asian \& Pacific Islander
Population, Prince William County, VA, 2000-20


FIGURE C. 107
Non-Hispanic/Latinx Asian \& Pacific Islander
Population, Stafford County, VA, 2000-20


FIGURE C. 108
Non-Hispanic/Latinx Asian \& Pacific Islander
Population, Warren County, VA, 2000-20


FIGURE C. 105
Non-Hispanic/Latinx Asian \& Pacific Islander
Population, Rappahannock County, VA, 2000-20


FIGURE C. 106
Non-Hispanic/Latinx Asian \& Pacific Islander
Population, Spotsylvania County, VA, 2000-20


FIGURE C. 109
Percentage Non-Hispanic/Latinx Asian \& Pacific Islander Population, Alexandria city, VA, 2000-20


FIGURE C. 110
Percentage Non-Hispanic/Latinx Asian \& Pacific Islander Population, Arlington County, VA, 200020


FIGURE C. 111
Percentage Non-Hispanic/Latinx Asian \& Pacific Islander Population, Clarke County, VA, 2000-20


FIGURE C. 112
Percentage Non-Hispanic/Latinx Asian \& Pacific Islander Population, Culpeper County, VA, 200020


FIGURE C. 113


FIGURE C. 114
Percentage Non-Hispanic/Latinx Asian \& Pacific Islander Population, Fairfax city, VA, 2000-20


## FIGURE C. 115



FIGURE C. 116
Percentage Non-Hispanic/Latinx Asian \& Pacific Islander Population, Fauquier County, VA, 200020


FIGURE C. 117


FIGUREC. 118
Percentage Non-Hispanic/Latinx Asian \& Pacific Islander Population, Loudoun County, VA, 200020


FIGURE C. 119
Percentage Non-Hispanic/Latinx Asian \& Pacific Islander Population, Madison County, VA, 200020


FIGURE C. 120
Percentage Non-Hispanic/Latinx Asian \& Pacific Islander Population, Manassas Park city, VA, 2000-20



FIGURE C. 122
Percentage Non-Hispanic/Latinx Asian \& Pacific Islander Population, Prince William County, VA,

## 2000-20



FIGURE C. 125
Percentage Non-Hispanic/Latinx Asian \& Pacific Islander Population, Stafford County, VA, 200020


FIGURE C. 126
Percentage Non-Hispanic/Latinx Asian \& Pacific
Islander Population, Warren County, VA, 2000-20
$25 \%$
$20 \%-$

FIGURE C. 123
Percentage Non-Hispanic/Latinx Asian \& Pacific Islander Population, Rappahannock County, VA, 2000-20


FIGURE C. 124
Percentage Non-Hispanic/Latinx Asian \& Pacific
Islander Population, Spotsylvania County, VA,
2000-20


FIGURE C. 127
Non-Hispanic/Latinx Black Population, Alexandria


FIGURE C. 128
Non-Hispanic/Latinx Black Population, Arlington
County, VA, 2000-20


FIGURE C. 129
Non-Hispanic/Latinx Black Population, Clarke County, VA, 2000-20


FIGURE C. 130


FIGURE C. 131
Non-Hispanic/Latinx Black Population, Fairfax


FIGURE C. 132
Non-Hispanic/Latinx Black Population, Fairfax city, VA, 2000-20


FIGURE C. 133
Non-Hispanic/Latinx Black Population, Falls Church city, VA, 2000-20


FIGURE C. 134
Non-Hispanic/Latinx Black Population, Fauquier County, VA, 2000-20


FIGURE C. 135
Non-Hispanic/Latinx Black Population,
Fredericksburg city, VA, 2000-20
125,000
100,000-
$75,000-$
$50,000-$

FIGURE C. 136
Non-Hispanic/Latinx Black Population, Loudoun County, VA, 2000-20


FIGURE C. 137


FIGURE C. 138
Non-Hispanic/Latinx Black Population, Manassas
Park city, VA, 2000-20



FIGURE C. 142
Non-Hispanic/Latinx Black Population,
SpotsyIvania County, VA, 2000-20



FIGURE C. 146
Percentage Non-Hispanic/Latinx Black Population, Arlington County, VA, 2000-20



FIGUREC. 148
Percentage Non-Hispanic/Latinx Black Population,


FIGURE C. 149
Percentage Non-Hispanic/Latinx Black Population,


FIGURE C. 150
Percentage Non-Hispanic/Latinx Black Population,
Fairfax city, VA, 2000-20


FIGURE C. 151
Percentage Non-Hispanic/Latinx Black Population,


FIGURE C. 152
Percentage Non-Hispanic/Latinx Black Population,
Fauquier County, VA, 2000-20


FIGURE C. 153
Percentage Non-Hispanic/Latinx Black Population, Fredericksburg city, VA, 2000-20


FIGURE C. 154
Percentage Non-Hispanic/Latinx Black Population, Loudoun County, VA, 2000-20


FIGURE C. 155
Percentage Non-Hispanic/Latinx Black Population, Madison County, VA, 2000-20


FIGURE C. 156
Percentage Non-Hispanic/Latinx Black Population,
Manassas Park city, VA, 2000-20



FIGUREC. 158
Percentage Non-Hispanic/Latinx Black Population,


FIGURE C. 161
Percentage Non-Hispanic/Latinx Black Population,
Stafford County, VA, 2000-20


FIGURE C. 162
Percentage Non-Hispanic/Latinx Black Population, Warren County, VA, 2000-20


## FIGUREC. 159

Percentage Non-Hispanic/Latinx Black Population, Rappahannock County, VA, 2000-20


FIGURE C. 160
Percentage Non-Hispanic/Latinx Black Population, Spotsylvania County, VA, 2000-20


FIGURE C. 163
Non-Hispanic/Latinx Some Other Race Population,
Alexandria city, VA, 2000-20


FIGURE C. 164
Non-Hispanic/Latinx Some Other Race Population,
Arlington County, VA, 2000-20


FIGURE C. 165
Non-Hispanic/Latinx Some Other Race Population,
Clarke County, VA, 2000-20


FIGURE C. 166
Non-Hispanic/Latinx Some Other Race Population,
Culpeper County, VA, 2000-20


FIGURE C. 167
Non-Hispanic/Latinx Some Other Race Population,
Fairfax County, VA, 2000-20


FIGURE C. 168
Non-Hispanic/Latinx Some Other Race Population,
Fairfax city, VA, 2000-20


FIGURE C. 169
Non-Hispanic/Latinx Some Other Race Population,
Falls Church city, VA, 2000-20


FIGURE C. 170
Non-Hispanic/Latinx Some Other Race Population,
Fauquier County, VA, 2000-20


FIGURE C. 171
Non-Hispanic/Latinx Some Other Race Population, Fredericksburg city, VA, 2000-20


FIGURE C. 172
Non-Hispanic/Latinx Some Other Race Population,
Loudoun County, VA, 2000-20


FIGURE C. 173
Non-Hispanic/Latinx Some Other Race Population, Madison County, VA, 2000-20


FIGURE C. 174
Non-Hispanic/Latinx Some Other Race Population,
Manassas Park city, VA, 2000-20


FIGURE C. 175
Non-Hispanic/Latinx Some Other Race Population,


FIGUREC. 176
Non-Hispanic/Latinx Some Other Race Population,
Prince William County, VA, 2000-20


FIGURE C. 179
Non-Hispanic/Latinx Some Other Race Population,


FIGURE C. 180
Non-Hispanic/Latinx Some Other Race Population,
Warren County, VA, 2000-20


FIGURE C. 177
Non-Hispanic/Latinx Some Other Race Population, Rappahannock County, VA, 2000-20


FIGURE C. 178
Non-Hispanic/Latinx Some Other Race Population,
Spotsylvania County, VA, 2000-20


FIGURE C. 181
Percentage Non-Hispanic/Latinx Some Other Race Population, Alexandria city, VA, 2000-20


FIGURE C. 182
Percentage Non-Hispanic/Latinx Some Other Race Population, Arlington County, VA, 2000-20


FIGURE C. 183
Percentage Non-Hispanic/Latinx Some Other Race Population, Clarke County, VA, 2000-20


FIGUREC. 184
Percentage Non-Hispanic/Latinx Some Other
Race Population, Culpeper County, VA, 2000-20


FIGURE C. 185
Percentage Non-Hispanic/Latinx Some Other Race Population, Fairfax County, VA, 2000-20


FIGURE C. 186
Percentage Non-Hispanic/Latinx Some Other
Race Population, Fairfax city, VA, 2000-20


FIGURE C. 187
Percentage Non-Hispanic/Latinx Some Other Race Population, Falls Church city, VA, 2000-20


FIGURE C. 188
Percentage Non-Hispanic/Latinx Some Other
Race Population, Fauquier County, VA, 2000-20


FIGURE C. 189
Percentage Non-Hispanic/Latinx Some Other Race Population, Fredericksburg city, VA, 200020


FIGURE C. 190
Percentage Non-Hispanic/Latinx Some Other Race Population, Loudoun County, VA, 2000-20


FIGURE C. 191
Percentage Non-Hispanic/Latinx Some Other


FIGURE C. 192
Percentage Non-Hispanic/Latinx Some Other



FIGUREC. 194
Percentage Non-Hispanic/Latinx Some Other
Race Population, Prince William County, VA, 2000-20


FIGURE C. 197
Percentage Non-Hispanic/Latinx Some Other
Race Population, Stafford County, VA, 2000-20


FIGURE C. 198
Percentage Non-Hispanic/Latinx Some Other
Race Population, Warren County, VA, 2000-20


FIGURE C. 195
Percentage Non-Hispanic/Latinx Some Other
Race Population, Rappahannock County, VA,
2000-20


FIGURE C. 196
Percentage Non-Hispanic/Latinx Some Other
Race Population, Spotsylvania County, VA, 2000-
20


FIGURE C. 199
Non-Hispanic/Latinx White Population,
Alexandria city, VA, 2000-20


FIGURE C. 200
Non-Hispanic/Latinx White Population, Arlington
County, VA, 2000-20


FIGURE C. 201
Non-Hispanic/Latinx White Population, Clarke County, VA, 2000-20


FIGURE C. 202
Non-Hispanic/Latinx White Population, Culpeper
County, VA, 2000-20


FIGURE C. 203
Non-Hispanic/Latinx White Population, Fairfax County, VA, 2000-20


FIGURE C. 204
Non-Hispanic/Latinx White Population, Fairfax
city, VA, 2000-20
400,000-000-200

FIGURE C. 205
Non-Hispanic/Latinx White Population, Falls Church city, VA, 2000-20


FIGURE C. 206
Non-Hispanic/Latinx White Population, Fauquier
County, VA, 2000-20


FIGURE C. 207
Non-Hispanic/Latinx White Population,


FIGURE C. 208
Non-Hispanic/Latinx White Population, Loudoun
County, VA, 2000-20


FIGURE C. 209
Non-Hispanic/Latinx White Population, Madison
County, VA, 2000-20


FIGURE C. 210
Non-Hispanic/Latinx White Population, Manassas
Park city, VA, 2000-20


FIGURE C. 211
Non-Hispanic/Latinx White Population, Manassas


FIGURE C. 212
Non-Hispanic/Latinx White Population, Prince
William County, VA, 2000-20


FIGURE C. 215
Non-Hispanic/Latinx White Population, Stafford
County, VA, 2000-20


FIGURE C. 216
Non-Hispanic/Latinx White Population, Warren
County, VA, 2000-20


FIGURE C. 213
Non-Hispanic/Latinx White Population,
Rappahannock County, VA, 2000-20


FIGURE C. 214
Non-Hispanic/Latinx White Population,
Spotsylvania County, VA, 2000-20



FIGURE C. 218
Percentage Non-Hispanic/Latinx White
Population, Arlington County, VA, 2000-20


FIGURE C. 219
Percentage Non-Hispanic/Latinx White
Population, Clarke County, VA, 2000-20


FIGUREC. 220


FIGURE C. 221


FIGURE C. 222
Percentage Non-Hispanic/Latinx White
Population, Fairfax city, VA, 2000-20


FIGURE C. 223


FIGURE C. 224
Percentage Non-Hispanic/Latinx White
Population, Fauquier County, VA, 2000-20


FIGURE C. 225


FIGURE C. 226
Percentage Non-Hispanic/Latinx White
Population, Loudoun County, VA, 2000-20


FIGURE C. 227


FIGURE C. 228
Percentage Non-Hispanic/Latinx White



FIGUREC. 230
Percentage Non-Hispanic/Latinx White
Population, Prince William County, VA, 2000-20


FIGURE C. 233
Percentage Non-Hispanic/Latinx White
Population, Stafford County, VA, 2000-20


FIGURE C. 234
Percentage Non-Hispanic/Latinx White
Population, Warren County, VA, 2000-20


## FIGURE C. 231

Percentage Non-Hispanic/Latinx White
Population, Rappahannock County, VA, 2000-20


FIGURE C. 232
Percentage Non-Hispanic/Latinx White


## Appendix D. West Virginia Charts

The maximum and minimum estimates, indicated by the error bars on the charts in appendices A through D , are based on people who chose a race by itself or in combination with any other race or races and people who chose only that race alone, respectively. The middle estimate, indicated by the dotted line on the charts and used in the main tables of this report, assigns people to mutually exclusive racial groups based on a methodology described in detail in appendix F.

All of the following charts display decennial census data compiled by Urban-Greater DC.

FIGURE D. 1
Adult and Child Populations, Jefferson County,
WV, 2000-20
$\square$ Adults 18 and older $\quad$ Children younger than 18


FIGURE D. 2
Hispanic/Latinx Population, Jefferson County,


FIGURE D. 3
Percentage Hispanic/Latinx Population, Jefferson County, WV, 2000-20


FIGURE D. 4


FIGURE D. 5
Percentage Non-Hispanic/Latinx American Indian \& Alaska Native Population, Jefferson County,
WV, 2000-20


FIGURE D. 6
Non-Hispanic/Latinx Asian \& Pacific Islander
Population, Jefferson County, WV, 2000-20


FIGURE D. 7
Percentage Non-Hispanic/Latinx Asian \& Pacific Islander Population, Jefferson County, WV, 2000-


FIGURE D. 8
Non-Hispanic/Latinx Black Population, Jefferson County, WV, 2000-20


FIGURE D. 9
Percentage Non-Hispanic/Latinx Black Population, Jefferson County, WV, 2000-20


FIGURE D. 10
Non-Hispanic/Latinx Some Other Race Population, Jefferson County, WV, 2000-20


FIGURE D. 11
Percentage Non-Hispanic/Latinx Some Other
Race Population, Jefferson County, WV, 2000-20


FIGURE D. 12
Non-Hispanic/Latinx White Population, Jefferson County, WV, 2000-20


FIGURE D. 13
Percentage Non-Hispanic/Latinx White
Population, Jefferson County, WV, 2000-20


## Appendix E. Census Data Quality

Several issues affected the quality of the 2020 decennial census. Some were particular to this census, and others have been persistent challenges for past censuses as well. In using and interpreting census data, users should be aware of these issues and how they might affect the reported census counts. In this appendix, we summarize the major issues and events that may have affected the accuracy of the 2020 decennial census. The Census Bureau provided more information for this census than previous censuses regarding the data collection process and data coverage, and researchers have started analyzing this information.

## Online Data Collection

The US Census Bureau noted that the 2020 decennial census marked "the first time that households were invited to respond to the census online" (Census 2021c). ${ }^{7}$ Using digital methods was seen as a way to make the census count more efficient and reduce costs. ${ }^{8}$ In recent censuses, a paper form was mailed to every US household, to be completed and returned to the Census Bureau. For the 2020 census, most households received a mailing in March 2020 inviting them to respond online or by phone, although people living in areas that were deemed less likely to respond online received a paper questionnaire along with their invitation. ${ }^{9}$ Additional reminder mailings were sent to nonresponsive households. Census workers, who in past censuses went door-to-door to get nonresponsive households to complete the paper census form, this time visited homes armed with Census Bureau-provided iPhone 8s programmed with a census form app. ${ }^{10}$

To implement online data collection, the Census Bureau had to develop new digital tools. ${ }^{11}$ These included the Block Assessment, Research, and Classification Application, which used satellite and aerial imagery to visualize changes in street blocks; the Response Outreach Area Mapper, which helped the Census Bureau determine where people were least likely to respond to the census; and the Enterprise Censuses and Surveys Enabling project, which created applications used by census workers to assist them in following up with nonresponsive households. The Census Bureau also had to develop measures to protect against cyberattacks and other threats to data security.

Although we do not yet know the impact the Census Bureau's online-first approach had on the 2020 census, both before and during the 2020 count many people expressed concerns that the emphasis on digital data collection would undercount people without internet connectivity or access to
digital devices. ${ }^{12}$ Access to high-speed broadband varies across the Greater DC region, and many census tracts have access rates below 70 percent. ${ }^{13}$ As noted above, as part of their initial March 2020 outreach the Census Bureau mailed paper questionnaires to households in areas with low broadband access, based on FCC data, ${ }^{14}$ as well as areas with high shares of people 65 and older. ${ }^{15}$ But because the FCC data may have overstated the level of connectivity, compared with other estimates, undercount concerns remained. ${ }^{16}$ Additional paper questionnaires were sent in April, and again in August and September, to all households that had not yet responded. ${ }^{17}$

Adding to these complications, the online-first approach created the need for additional deduplication of census responses. For the 2020 census, households could respond online without using a unique census ID number linking the response to the bureau's address list. As the bureau noted, "Allowing responses without an ID made it even easier for households to respond, but it also made it easier for more than one person to respond for the household," requiring further efforts to detect and correct these errors. ${ }^{18}$

## Citizenship Question Controversy

The Census Bureau has detailed criteria (Census n.d.) concerning who should be included in decennial census counts. These criteria are meant to comply with the 14th Amendment to the US Constitution's requirement that "representatives shall be apportioned among the several states according to their respective numbers, counting the whole number of persons in each state, excluding Indians not taxed" (Our Documents n.d.). American Indians have been included in the decennial census since 1890, but their numbers were deducted from the apportionment counts used to determine congressional representation until 1940. Since that time, the bureau has attempted to count and include all American Indians and Alaska Natives as part of the decennial apportionment and redistricting counts (Lujan 1990). The counting of the "whole number of persons" has historically been interpreted to include both US citizens as well as noncitizen residents.

Although the 1950 census instructed census takers to ask about the naturalization status of people born outside the US (the last time such information was gathered for the full population), ${ }^{19}$ the decennial census has never directly asked for the citizenship status of all people living in the country (Wolf and Cea 2019). Since 1970 a citizenship question in some form was included in the census long forms, but those questions were asked of only a sample of all households: 1 in 20 households in 1970, 1 in 5 in 1980, and 1 in 6 in 1990 and 2000. ${ }^{20}$ (A citizenship question continues to be asked as part of the
ongoing American Community Survey, which replaced the census long form following the 2000 census and is also collected on a sample of households.)

In 2018, however, the US Commerce Department (where the Census Bureau resides) attempted to add a citizenship question to the census, reportedly in response to a request from the US Justice Department, which claimed it needed the data to enforce the 1965 Voting Rights Act. ${ }^{21}$ This proposed question was met by strong opposition, including from six former Census Bureau directors. ${ }^{22}$ In addition to distrust of the Trump administration's stated motive for adding this question (distrust that was justified by a subsequent investigation ${ }^{23}$ ), opponents believed that including such a question would make noncitizens or households with people of mixed immigration status fearful of responding to the census or cause people who were noncitizens to be left out of household rosters. A Census Bureau working paper that examined the quality of citizenship data collected across various surveys noted that "Hispanics and non-Hispanic other race [Asians, American Indians and Alaska Natives, Native Hawaiians and other Pacific Islanders, and people of two or more races] have higher rates of nonresponse for citizenship than for sex or age, providing some preliminary evidence that these groups could be disproportionately impacted by the addition of citizenship on the 2020 census questionnaire" (Brown et al. 2018).

The controversy eventually went to the Supreme Court, which in a 5-4 decision rejected the Commerce Department's rationale for adding the citizenship question, calling it "contrived." ${ }^{24}$ The administration continued to try to force the matter, issuing an executive order in July 2019 and a memorandum to the Secretary of Commerce in July 2020 instructing federal agencies to assist the Department of Commerce in determining the number of citizens and noncitizens in the country and to exclude from the apportionment counts "aliens who are not in a lawful immigration status," respectively. ${ }^{25}$ The July 2020 memorandum was reversed on January 20, 2021, by a Biden administration executive order that reestablished as policy the "whole person" base for apportionment specified in the 14th amendment. ${ }^{26}$

In the end, a citizenship question was not included in the 2020 census questionnaire and was not asked of census respondents. Consistent with past practice, all people residing in the US were included in the published apportionment counts, as well as the redistricting data presented in this report, regardless of their citizenship or immigration status.

Nevertheless, the controversy was debated at a very high level in the US government and was extensively reported on by the media, both domestic and international. ${ }^{27} \mathrm{As}$ a result, there are concerns that the debate about a possible citizenship question, combined with grave distrust of the Trump
administration by immigrant communities, may have had a chilling effect and reduced the completeness of census counts for people who have immigrated to the US from other countries (Lopez, GonzalezBarrera, and Krogstad 2018). ${ }^{28}$

## COVID-19 Challenges

Conducting a decennial census is a daunting prospect in the best of circumstances. The COVID-19 global pandemic, which spread to the US in early 2020, exacerbated these challenges. In March 2020, at the peak of the decennial census data collection, the bureau temporarily suspended data collection operations to help slow the spread of COVID-19. ${ }^{29}$ The pandemic continued to create operational challenges as well as confusion over census plans and deadlines.

As detailed in a timeline provided by National Public Radio, the government made conflicting statements over the plans for the COVID-19-affected census. ${ }^{30}$ On April 13, 2020, the Census Bureau announced an extension of census data collection from July 31 to October 31, citing the need for more time to ensure a complete and accurate count. Census Bureau officials also began communicating with members of Congress that the bureau would not be able to meet the legal deadlines for delivering apportionment and redistricting data by December 31, 2020. Citing difficulties in recruiting census workers during the pandemic and safety concerns around door-to-door outreach, the bureau's associate director for field operations said that "any thinking person who would believe we can deliver apportionment by $12 / 31$ has either a mental deficiency or a political motivation. ${ }^{31}$ Concerns about the ability of the US Postal Service to deliver census forms to households during the pandemic also were aired. ${ }^{32}$ In May and June, bills were introduced in the House of Representatives and the Senate to extend census reporting deadlines.

By late July, however, Census Bureau deputy director Ron Jarmin informed the associate director for the 2020 census that he was instructing the bureau to create a plan to accelerate census field operations to meet the December 31 deadline. The plan would involve ending door-knocking efforts by September 30. The longer COVID-19 schedule with the October 31 data collection end date was removed from the Census Bureau website, ${ }^{33}$ and although bureau staff began making plans for the shorter schedule, internally concern was raised that doing so would create the risk of serious errors. ${ }^{34}$

The Census Bureau eventually specified a deadline of October 15 for accepting internet selfresponses, two weeks sooner than the originally proposed COVID-19 schedule and more than three months later than the normal census time frame. ${ }^{35}$ October 15 was also the deadline for postmarking
paper responses and for census workers to resolve nonresponsive households. Apportionment counts, which are used to divide the 435 seats in the House of Representatives among the 50 states, from the 2020 census were released on April 26, 2021, almost four months after the statutory December 31 deadline. ${ }^{36}$ Although they are not used for apportionment, resident population counts for the District of Columbia and Puerto Rico were also released at that time. Redistricting data, which are provided for the 50 states, the District of Columbia, and Puerto Rico for use in redrawing congressional and state legislative district boundaries, were released on August 12, 2021, over seven months after the statutory December 31 deadline. ${ }^{37}$

It is unclear what impact all of these delays had on the quality of data from the 2020 census, but the changing deadlines and conflicting messaging likely created confusion among census workers and the public about how long data collection would continue. And although more time was undoubtedly needed because of the pandemic, the longer data collection period created more opportunities for households to respond more than once to the census, requiring the bureau to take further steps to avoid double counting people. Finally, the delays in the release of the apportionment and redistricting data may have fueled uncertainty among the public over the quality of the final census numbers.

## Group Quarters Enumeration

People in the decennial census are identified as either living in housing units or group quarters. The Census Bureau defines housing units as
a house, an apartment, a group of rooms, or a single room occupied or intended for occupancy as separate living quarters. Separate living quarters are those in which the occupants do not live and eat with other persons in the structure and which have direct access from the outside of the building or through a common hall. ${ }^{38}$

In contrast, group quarters are defined as
places where people live or stay in a group living arrangement that is owned or managed by an organization providing housing and/or services for the residents. GQs differ from typical household living arrangements because the people living in them are usually not related to one another. Group quarters include such places as college residence halls, residential treatment centers, skilled nursing facilities, group homes, military barracks, prisons and worker dormitories. ${ }^{39}$

As noted in table 1, about 1.7 percent of the Greater DC region's 2020 population was counted as living in group quarters.

The decennial census uses different methods to count people in group quarters, compared with counting people in households, relying on facility administrators and staff to provide accurate counts of people living in these locations. ${ }^{40}$ For the 2020 census, field staff contacted group quarters by phone or in person to prepare for counting residents. The bureau developed group quarters lists from previous operations and information collected from state and local governments and by canvassing communities for new places people might live.

The pandemic complicated efforts to count group quarters populations, however, particularly skilled nursing facilities and college residences (Biemer, Salvo, and Auerbach 2021). Nursing facilities experienced higher rates of COVID-19 infections and deaths than the rest of the country, which made obtaining information from these locations more difficult. ${ }^{41}$ College students living in student housing were meant to be counted as living in these residences, even if their schools were closed because of the pandemic, ${ }^{42}$ but it is likely that respondent confusion over these instructions led to the same people being counted in different places, requiring further deduplication. ${ }^{43}$

By the end of counting in 2020, the Census Bureau reportedly had no data on one in five college dorms, nursing homes, and prisons, requiring the bureau to do additional follow-up. ${ }^{44}$ When the Census Bureau could not obtain counts from group quarters, statistical methods were used to impute the population. Nationwide, about 2 percent of the total group quarters population was imputed in 2020. The rate of imputation was 0.26 percent for the District of Columbia, the third lowest in the nation; the rate was 0.53 percent in West Virginia, 0.71 percent in Virginia, and 1.23 percent in Maryland (Biemer, Salvo, and Auerbach 2021).

## Census Disclosure Avoidance System

The Census Bureau is legally obligated under US Code Title 13 to protect the confidentiality of people who respond to the census. ${ }^{45}$ To prevent disclosure of personal information in published tabulations, the Census Bureau uses disclosure avoidance procedures-techniques to disguise data to protect the confidentiality of individuals and households.

Disclosure avoidance for the decennial census is not new (Census 2021b). Starting with the 1930 census, the bureau stopped publishing some small-area data to protect confidentiality. In 1970 and 1980, the bureau selectively suppressed entire data tables based on the total number of people or

## APPENDIX

households represented in those tabulations. Beginning in 1990, the bureau used data swapping, which exchanges data for certain households with those from a similar household based on specific characteristics. Disclosure avoidance procedures also included "top- and bottom-coding, blank-andimpute algorithms, table and cell suppression, and other methods" (Census 2021b).

Citing advances in computing technology and the growth in commercially available databases on people and households, the Census Bureau decided that more modern methods were needed to protect the privacy of people represented in published census tabulations. ${ }^{46}$ For 2020 census data, the Census Bureau applied a new disclosure avoidance framework based on differential privacy, which works by adding "noise," or random errors, to data. The bureau noted that "adding noise into the data is a tradeoff. Adding more noise increases confidentiality protection, but it also makes the data less accurate" (Census 2021b). Nevertheless, the bureau has cited several advantages of differential privacy over previously used disclosure avoidance methods:

- Differential privacy allows the Census Bureau to track and address potential privacy loss as the list of published tables is expanded.
- Unlike prior methods of table suppression or record swapping, differentially private data can be published, analyzed, and linked to other data without any increased risk of disclosure; once the data have been processed, there is no more privacy loss regardless of how the data are used.
- Differential privacy provides mathematically provable guarantees against a wide range of potential privacy attacks.
- Differential privacy is transparent, unlike prior data protection methods such as data swapping.
- The programming code and decisions for differential privacy are available to the public; the only information not published is the exact value of the noise that is added to a given data point.

Despite these assertions, the use of differential privacy has been controversial. Some researchers questioned the Census Bureau's conclusion as to the need for additional measures and expressed concern over the potential impact on final counts (Ruggles and Van Riper 2021). In analyzing data from a Census Bureau privacy experiment based on 2010 data, researchers from the University of Minnesota concluded that summary file counts of occupied housing units would have changed greatly had differential privacy been applied (Van Riper, Kugler, and Ruggles 2020). Analysis by researchers at Harvard University of differential privacy demonstration data provided by the bureau found that differential privacy may introduce large and unpredictable errors into redistricting data. ${ }^{47}$ University of

Minnesota researchers concluded that the new disclosure avoidance procedures did not yield a substantial improvement in the accuracy of data for Black and Latinx populations. ${ }^{48}$

It is difficult to assess the impact of differential privacy on the final released 2020 census data products. In the end, the bureau reduced the level of random noise that it thought was necessary to protect privacy, compared with the demonstration data that it released earlier, responding to concerns expressed by data users. ${ }^{49}$ Several counts do not have any noise added to them, including total population at the state level, total housing units at the block level, and the number of group quarters facilities by type at the block level (Census 2021b). All other population, household, and housing unit data have noise introduced, but the accuracy of the data should increase for larger geographic areas and populations, such as the county-level data presented in this report. Analysis of subcounty data and data for small populations would be more susceptible to errors introduced by disclosure avoidance procedures, however.

## Hard-to-Count Populations

Since the very first census, making sure that all eligible people are counted has been a challenge. Hard-to-count populations include people for whom "real or perceived barriers exist to full and representative inclusion in the data collection process." ${ }^{50}$ The hard-to-count population can include people experiencing homelessness and people from groups that have experienced discrimination, marginalization, or oppression. Research by the Census Bureau also identified people who are concerned about the privacy of their information, people who are skeptical about the government and its motives, and people who are disconnected from the internet and generally apathetic about the census as potentially hard-to-count groups (Kulzick et al. 2019).

The Census Bureau used a variety of messaging strategies to encourage people to respond to the census. To overcome potential language barriers, 2020 census invitation and reminder mailings had instructions in 12 languages as well as English, and the bureau provided additional materials in 59 nonEnglish languages. ${ }^{51}$ The bureau also worked with complete count committees across the country composed of tribal, state, and local governments and community leaders in education, business, health care, and other organizations who organize to encourage census participation and conduct outreach to hard-to-count communities. ${ }^{52}$

In June 2019, the Metropolitan Washington Council of Governments hosted a forum,
"Interventions that Work: 2020 Census and Hard-to-Reach Communities," ${ }^{53}$ to discuss "strategies and
coordination to ensure an accurate count of hard-to-reach populations, including immigrants, older adults, families with young children, and communities of color." In November 2019, the Washington Regional Association of Grantmakers wrote the "2019: Our Region, Our Giving" report ${ }^{54}$ to support and coordinate efforts to promote the 2020 census response in the District of Columbia and surrounding cities and counties in Maryland and Virginia. The report discussed community engagement efforts and lessons about what has worked to encourage participation in past censuses. Accompanying the report were jurisdiction-specific What You Need to Know About the 2020 Census information sheets that included maps highlighting census tracts that had a higher probability of being undercounted based on population characteristics and 2010 census mail return rates.

In February 2021, the Community Foundation for Northern Virginia's Every Voice Counts: Count the Region report ${ }^{55}$ detailed the importance of the census for Virginia jurisdictions, the efforts made to increase responses, and the outcomes and lessons learned from those efforts. As will be discussed in the next section, Northern Virginia jurisdictions all improved their self-response rates compared with the 2010 census, including in hard-to-count census tracts, which may suggest an improvement in obtaining a complete count in 2020. Among the lessons learned, the report noted that it was important to make participation in census outreach efforts easy and meaningful, consider how to better coordinate activities, and recognize the need to provide extra support to hard-to-count communities.

In October 2021, the 2020 Census Working Group of the Washington Regional Association of Grantmakers released its "CountDMVIn Census 2020: Community Action in the Washington, DC Region" report, ${ }^{56}$ which summarized the results of the 2020 census for the Metropolitan Washington Council of Governments region and reviewed the community outreach efforts undertaken to promote a complete count. The report noted that using trusted messengers and social media were effective in getting the word out, and that funding for census-specific outreach and microtargeting of neighborhoods were also important strategies. Challenges included coordinating efforts among stakeholders, the impacts of the pandemic, language access, and the need for more coordinated and tailored messaging. The report concluded with a look ahead to the 2030 census and steps that the region can take to plan for the next decennial count.

Despite the extensive efforts undertaken by the region, data on census quality, discussed in the next section, suggest that differences exist in the completeness of 2020 census counts for certain populations and communities.

## Estimates of 2020 Census Quality

The 2010 decennial census was likely one of the most accurate ever conducted in the US. The Census Bureau estimated that the 2010 census had a net overcount of 0.01 percent, meaning the nation's population was about 36,000 less than that reported from the decennial count. In comparison, the 2000 census had a net overcount of 0.49 percent, and the 1990 and 1980 censuses had undercounts of -1.6 and between -0.8 and -1.4 percent, respectively. Even though the overall count was likely very accurate, the 2010 decennial census still suffered from a differential undercount of certain populations. For example, the 2010 census undercounted the Black population by -2.1 percent and the Hispanic/Latinx population by -1.5 percent. And although the net error was not statistically different than zero for American Indian and Alaska Native populations overall, those living on reservations were undercounted by -4.9 percent in $2010 .{ }^{57}$

The 2020 census is generally considered to have been less accurate than the 2010 census. The Census Bureau is taking several approaches to assessing the quality of the 2020 census, some of which are still underway. ${ }^{58}$ The bureau has reported that the 2020 count enumerated 99.9 percent of all housing units in the US, which included 67.0 percent of units that self-responded to the census and 32.9 percent that were gathered during nonresponse follow-up. ${ }^{59}$ The latter include the use of statistical procedures to fill in missing housing unit and group quarters data when that information cannot be collected directly. These same data show that the 2020 census enumerated 99.9 percent of all housing units in the District of Columbia and the states of Maryland, Virginia, and West Virginia. ${ }^{60}$

By comparing census counts with other population surveys and administrative data, the Census Bureau can produce additional accuracy measures. The bureau has estimated the net coverage error for the entire US population for the 2020 census was between 0.22 percent (overcount) and -1.21 percent (undercount). ${ }^{11}$ Additional estimates include an undercount of between -1.77 and -2.28 percent for children younger than 18 and a range of 3.95 percent (overcount) to -9.67 percent (undercount) for Hispanic/Latinx children.

Researchers at the Urban Institute have created their own estimates of 2020 census accuracy by comparing the decennial count with a simulation of population changes. Using this method, the Urban researchers estimated that the 2020 census had an overall net undercount of -0.51 percent, which included net undercounts of -2.05 percent for the District of Columbia, -0.48 percent for Maryland, 0.13 percent for Virginia, and -0.48 percent for West Virginia. They also estimated that the Greater DC region had an overall net undercount of -0.44 percent. Additionally, the Urban simulation estimated that, nationally, the Black population was undercounted by -2.45 percent, the Hispanic/Latinx
population by -2.17 percent, the Pacific Islander population by -1.52 percent, the Asian population by 0.6 percent, and the American Indian and Alaska Native populations by -0.36 percent. According to the model, the 2020 census overcounted the white population by 0.39 percent. Finally, the Urban researchers' estimates indicated that children younger than 5 were undercounted by -4.86 percent (Elliott et al. 2021).

## Self-Response Rates

An additional metric that can be used to assess the quality of the decennial counts are the rates at which households self-responded to the census. Data from self-responding households are generally considered to be more reliable ${ }^{62}$ than data obtained through nonresponse methods. Areas that had lower self-response rates may therefore have data that are less accurate than those with higher selfresponse rates. The Census Bureau has released self-response rates for the 2010 and 2020 censuses so that results from the two decennial counts can be compared.

Table E. 1 includes the self-response rates reported by the Census Bureau for the 2020 and 2010 censuses. For 2020, the response rates include the percentage of housing units that responded through the internet as well as the overall self-response rate, which includes mailed questionnaires. For 2010, mailed questionnaires were the only self-response option. The jurisdictions in the Greater DC region are sorted in the table from highest to lowest overall self-response rates in 2020.

TABLE E. 1
Census Self-Response Rates, Greater DC Region, 2010 and 2020

|  | 2010 <br> Self- <br> response <br> rates (\%) |  | Self-response <br> rates (\%) | Tract self-response <br> ranges (\%) |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
|  | Overall | Overall | Internet <br> only | Highest | Lowest |
| Fairfax, VA | 75.9 | 83.1 | 77.6 | 87.9 | 78.9 |
| Falls Church, VA | 75.6 | 82.5 | 78.1 | 89.1 | 77.1 |
| Loudoun County, VA | 75.0 | 82.3 | 78.2 | 92.6 | 60.8 |
| Fairfax County, VA | 75.3 | 80.8 | 75.7 | 95.4 | 49.3 |
| Stafford County, VA | 73.8 | 80.4 | 74.2 | 89.6 | 40.9 |
| Frederick County, MD | 75.0 | 78.5 | 69.5 | 90.1 | 51.9 |
| Montgomery County, MD | 76.1 | 78.0 | 70.9 | 92.2 | 58.2 |
| Prince William County, VA | 72.1 | 77.0 | 70.9 | 90.0 | 31.5 |
| Spotsylvania County, VA | 72.5 | 77.0 | 69.0 | 84.7 | 55.0 |
| Arlington County, VA | 73.3 | 76.5 | 72.3 | 90.9 | 7.4 |
| Fauquier County, VA | 68.4 | 76.3 | 66.6 | 87.6 | 57.0 |
| Culpeper County, VA | 69.9 | 76.1 | 64.6 | 84.6 | 68.5 |


|  | 2010 <br> Self- <br> response <br> rates (\%) |  | Self-response <br> rates (\%) | Tract self-response <br> ranges (\%) |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
|  | Overall | Overall | Internet <br> only | Highest | Lowest |
| Charles County, MD | 71.5 | 75.3 | 67.4 | 83.5 | 61.5 |
| Calvert County, MD | 68.8 | 75.1 | 67.8 | 83.2 | 62.4 |
| Manassas Park, VA | 70.9 | 74.2 | 67.5 | 79.9 | 64.2 |
| Alexandria, VA | 71.7 | 73.7 | 68.5 | 90.7 | 50.3 |
| Manassas, VA | 68.7 | 73.5 | 66.3 | 83.3 | 67.5 |
| Jefferson County, WV | 62.8 | 73.5 | 61.5 | 84.3 | 64.0 |
| Clarke County, VA | 64.8 | 72.8 | 61.3 | 77.5 | 63.0 |
| Warren County, VA | 66.2 | 71.8 | 60.3 | 76.0 | 65.3 |
| Prince George's County, MD | 68.6 | 70.0 | 60.8 | 90.0 | 20.0 |
| Fredericksburg, VA | 65.1 | 68.1 | 59.5 | 76.7 | 24.3 |
| Madison County, VA | 37.4 | 67.1 | 27.9 | 72.9 | 58.3 |
| District of Columbia | 66.0 | 64.0 | 55.3 | 90.9 | 26.7 |
| Rappahannock County, VA | 52.2 | 59.7 | 34.4 | 61.7 | 56.5 |

Source: Decennial census self-response data compiled by Urban-Greater DC.

Fairfax, VA, had the highest self-response rate in the Greater DC region for the 2020 census, at 83.1 percent, and also had one of the highest internet response rates ( 77.6 percent). Loudoun County, Fairfax County, and Stafford County all had overall self-response rates of 80 percent or higher. In contrast, Fredericksburg, VA; Madison County; the District of Columbia; and Rappahannock County had self-response rates below 70 percent. Madison County and Rappahannock County also had particularly low internet self-response rates.

All jurisdictions in the Greater DC region, except the District of Columbia, improved their selfresponse rates from the 2010 census. Madison County, in particular, went from a self-response rate of 37.4 percent in 2010 to an overall rate of 67.1 percent in 2020, despite having a very low internet response rate. All the jurisdictions with overall rates of 80 percent or higher in 2020 also saw notable improvements over the 2010 count. The District of Columbia, however, did slightly better in 2010 (66.0 percent) compared with 2020 ( 64.0 percent). Although we lack direct evidence, it is possible that the COVID-19 pandemic and the other issues noted above made census data collection more difficult in DC than in other jurisdictions.

Even for jurisdictions with high self-response rates, different areas within the jurisdiction could have higher or lower rates. In Loudoun County, for instance, which had a high overall self-response rate of 82.3 percent in 2020, the rates in individual census tracts ranged from 92.6 to 60.8 percent.

Arlington County, Prince George's County, and the District of Columbia had some of the widest ranges in tract-level self-response rates, with one tract in Arlington County having a self-response rate of only
7.4 percent. ${ }^{63}$ The 20 census tracts with the highest self-response rates in the region are all located in Fairfax County.

Differences in self-response rates across census tracts raise concerns that the accuracy and completeness of decennial census counts may vary for different communities and populations. To assess this possibility further, we used a linear regression to model the overall tract-level self-response rates in 2020 based on tract characteristics (table E.2). The model uses 2020 census population proportions for adults versus children and by race/ethnicity. Consistent with standard practice, the largest populations (adults and people who were non-Hispanic/Latinx white) were omitted from the explanatory variables, which means that the coefficients of other variables are interpreted relative to those populations. The model also included fixed-effects variables to measure possible differences across jurisdictions; Charles County, MD, was omitted from these variables because the county's overall response rate ( 75.3 percent) was the median for all jurisdictions in the region. Finally, the total number of housing units in 2020 was included to test whether tracts with larger numbers of units had different response rates.

TABLE E. 2
Regression Results for Analysis of Tract-Level Census Self-Response Rates, Greater DC Region, 2020

Dependent variable: overall self-response rate (proportion)

| Number of observations read | 1,487 |
| :--- | ---: |
| Number of observations used | 1,462 |
| Number of observations with missing values | 25 |


| Analysis of Variance |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | :---: | :---: | :---: |
| Source | DF | Sum of | Mean | F |  |  |
| Squares | Square | Value | Pr >F |  |  |  |
| Model | 31 | 8.94676 | 0.28861 | 46.11 | $<.0001$ |  |
| Error | 1430 | 8.95046 | 0.00626 |  |  |  |
| Corrected total | 1461 | 17.89723 |  |  |  |  |


| Root MSE | 0.07911 | $R$-Square | 0.4999 |
| :--- | ---: | :--- | :--- |
| Dependent Mean | 0.75378 | Adj. $R$-Sq | 0.4891 |
| Coeff. Var. | 10.49565 |  |  |

Parameter Estimates

| Variable | Label | DF | Parameter Estimate | Standard Error | $t$ Value | $\operatorname{Pr}>\|t\|$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Intercept | Intercept | 1 | 0.82191 | 0.02085 | 39.41 | <. 0001 |
| TOTHSUN2 | Total housing units, 2020 | 1 | -0.00000367 | 0.00000357 | -1.03 | 0.3051 |
| Child2 | Proportion children | 1 | 0.44764 | 0.04224 | 10.60 | <. 0001 |
| Shrhsp2 | Proportion Hispanic/Latinx | 1 | -0.35195 | 0.01797 | -19.58 | <. 0001 |
| SHRNHI2 | Proportion NH Am. Indian and AK Native | 1 | -4.53375 | 1.29553 | -3.50 | 0.0005 |
| SHRNHA2 | Proportion NH Asian and PI | 1 | -0.07482 | 0.03003 | -2.49 | 0.0128 |
| SHRNHB2 | Proportion NH Black | 1 | -0.22844 | 0.01326 | -17.23 | <. 0001 |
| SHRNHO2 | Proportion NH some other race | 1 | 0.17739 | 0.76285 | 0.23 | 0.8162 |
| Cnty_11001 | District of Columbia | 1 | -0.10140 | 0.01637 | -6.19 | <. 0001 |
| Cnty_24009 | Calvert County, MD | 1 | -0.10538 | 0.02417 | -4.36 | <. 0001 |
| Cnty_24021 | Frederick County, MD | 1 | -0.05979 | 0.01856 | -3.22 | 0.0013 |
| Cnty_24031 | Montgomery County, MD | 1 | 0.00261 | 0.01686 | 0.15 | 0.8770 |
| Cnty_24033 | Prince George's County, MD | 1 | 0.01825 | 0.01649 | 1.11 | 0.2687 |
| Cnty_51013 | Arlington County, VA | 1 | -0.02975 | 0.01878 | -1.58 | 0.1135 |
| Cnty_51043 | Clarke County, VA | 1 | -0.13605 | 0.04252 | -3.20 | 0.0014 |
| Cnty_51047 | Culpeper County, VA | 1 | -0.06399 | 0.02945 | -2.17 | 0.0300 |
| Cnty_51059 | Fairfax County, VA | 1 | 0.00204 | 0.01722 | 0.12 | 0.9056 |
| Cnty_51061 | Fauquier County, VA | 1 | -0.09120 | 0.02376 | -3.84 | 0.0001 |
| Cnty_51107 | Loudoun County, VA | 1 | -0.01566 | 0.01923 | -0.81 | 0.4156 |
| Cnty_51113 | Madison County, VA | 1 | -0.20131 | 0.04280 | -4.70 | <. 0001 |
| Cnty_51153 | Prince William County, VA | 1 | -0.00961 | 0.01782 | -0.54 | 0.5898 |
| Cnty_51157 | Rappahannock County, VA | 1 | -0.26708 | 0.05817 | -4.59 | <. 0001 |
| Cnty_51177 | Spotsylvania County, VA | 1 | -0.05833 | 0.02026 | -2.88 | 0.0040 |
| Cnty_51179 | Stafford County, VA | 1 | -0.01776 | 0.02001 | -0.89 | 0.3749 |
| Cnty_51187 | Warren County, VA | 1 | -0.14957 | 0.03051 | -4.90 | <. 0001 |
| Cnty_51510 | Alexandria, VA | 1 | -0.03283 | 0.01956 | -1.68 | 0.0935 |
| Cnty_51600 | Fairfax, VA | 1 | 0.02870 | 0.03897 | 0.74 | 0.4615 |
| Cnty_51610 | Falls Church, VA | 1 | -0.03487 | 0.04857 | -0.72 | 0.4729 |
| Cnty_51630 | Fredericksburg, VA | 1 | -0.15979 | 0.03378 | -4.73 | <. 0001 |
| Cnty_51683 | Manassas, VA | 1 | -0.00303 | 0.03412 | -0.09 | 0.9293 |
| Cnty_51685 | Manassas Park, VA | 1 | -0.00744 | 0.04871 | -0.15 | 0.8786 |
| Cnty_54037 | Jefferson County, WV | 1 | -0.13270 | 0.02584 | -5.14 | <. 0001 |

Source: Decennial census self-response data analyzed by Urban-Greater DC.
Notes: DF = degrees of freedom; $\operatorname{Pr}=$ probability; MSE = mean square error; Coeff. Var. = coefficient of variation; NH = nonHispanic/Latinx; Am. = American; AK = Alaska; PI = Pacific Islander. Model-omitted variables are proportion adult, proportion NH white, and Charles County, MD.

The model indicates that census tracts in the Greater DC region with larger proportions of children younger than 18 had higher self-response rates, and tracts with larger proportions of people who were Hispanic/Latinx, non-Hispanic/Latinx American Indian or Alaska Native, non-Hispanic/Latinx Asian or Pacific Islander, and non-Hispanic/Latinx Black had lower self-response rates. The total number of housing units and the proportion of people of other races in the tract did not have a statistically significant impact on self-response rates. These results indicate that the quality of 2020 census data collection may be better in places with more children, but they raise concerns about the quality of data for Black, Indigenous, and other people of color in the Greater DC region.

Controlling for the other factors in the model, several jurisdictions had tract-level self-response rates that were statistically below the median jurisdiction (Charles County). A number of jurisdictions, including the District of Columbia; Rappahannock County; Madison County; Fredericksburg, VA; and Warren County, had lower overall self-response rates (indicated by negative parameter estimates), even after controlling for tract-level population characteristics. None of the positive jurisdictional fixed-effects parameter estimates were statistically different from zero, however, indicating that the relatively better performance of these jurisdictions was likely explained by the population characteristics of the tracts and not by other jurisdictional-level characteristics.

## Appendix F. Race Data

A major change in 2000 from previous censuses was the addition of multiracial categories in the collection and tabulation of the data. Respondents in the 2000 census were allowed to select one or more of six racial groups: white, Black/African American, Native American/Alaska Native, Asian, Native Hawaiian/Other Pacific Islander, and "some other race." In previous censuses, respondents could choose only one racial group. About 2.4 percent of respondents nationwide selected more than one racial group in 2000, although this proportion was higher in certain areas and has been growing with subsequent censuses.

In the 2020 census questionnaire, the question on race allowed people to select from among 15 categories and, for the first time, asked them to write in national origins as part of their responses. For instance, someone who selected "Black or African American" could also write in "African American," "Jamaican," "Haitian," or some other origin. The check boxes for Asians and Pacific Islanders included specific options such as "Chinese," "Vietnamese," and "Native Hawaiian," and also let people write in a group name not listed. ${ }^{64}$

In tabulating population by race from the 2000 census and subsequent decennial censuses, the Census Bureau has provided counts for all 63 combinations of the six racial groups that a respondent could have selected. To facilitate comparisons with previous censuses, the Urban Institute's Neighborhood Change Database created "race bridging" variables from the 2000 census that reapportioned multiracial categories into single racial groups using a method developed by Jeffrey Passel, formerly of the Urban Institute's Population Studies Center. This bridging method uses the rules below, in descending order of priority:

1. Black + any other race, assign to Black, otherwise
2. Asian + any other race, assign to Asian, otherwise
3. Native Hawaiian or Other Pacific Islander (NH/OPI) + any other race, assign to PI, otherwise
4. White + any other race, assign to white, otherwise
5. American Indian or Alaska Native (AI/AN) + any other race, assign to Am. Indian and AK Native, otherwise
6. Assign to "Some other race"

For the sixth group, "Some other race," only people selecting this alone are assigned to that bridging category.

These rules were developed to provide mutually exclusive racial groups that were as consistent as possible with people's assumed responses to previous single-race selections on earlier censuses.

In addition to the race question, a separate census ethnicity question asks respondents whether they consider themselves to be "Hispanic, Latino, or Spanish origin." The 2020 version of this question provides specific examples of ethnicities considered to be in this category: Mexican, Mexican American, Chicano, Puerto Rican, Cuban, Salvadoran, Dominican, Colombian, Guatemalan, Spaniard, and Ecuadoran. As this question is separate from the race question, people who are Hispanic/Latinx may declare themselves to be white, Black, Asian, Native Hawaiian/Pacific Islander, American Indian, or some other race, depending on the race options available for the particular census. For this analysis, however, we separated people who are Hispanic/Latino, identified in this report as "Hispanic/Latinx," from the racial groups, which we qualified as "non-Hispanic/Latinx white," "non-Hispanic/Latinx Black," and so forth. We also combined the Asian and Native Hawaiian/Pacific Islander populations, creating six mutually exclusive race/ethnic groups that comprise the entire population.

Table F. 1 shows how excluding or including Hispanic/Latinx people affects the sizes of the different racial groups. For example, the non-Hispanic/Latinx American Indian and Alaska Native population was 11,378, or 0.2 percent of the region's population, but including Hispanic/Latinx people increases the size of this group to 52,003 , or 0.8 percent of the population.

TABLE F. 1

## Non-Hispanic/Latinx and Total Population by Race, Greater DC Region, 2020

|  | Population |  | Population (\%) |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Race/Ethnicity | Non- |  |  |  |  |
| Hispanic/Latinx | Total | Non- |  |  |  |
| Hispanic/Latinx |  |  |  |  |  |$\quad$ Total | Am. Indian and AK |
| :--- |$r$|  |  |  |  |
| ---: | ---: | ---: | ---: |
| Native | 11,378 | 52,003 | 0.2 |
| Asian and PI | 803,603 | 819,881 | 12.6 |
| Black | $1,658,715$ | $1,721,033$ | 12.8 |
| Multiracial | 300,816 | 643,407 | 26.0 |
| 27.0 |  |  |  |
| Some other race | 40,572 | 591,072 | 4.7 |
| White | $2,775,944$ | $3,201,173$ | 0.6 |

Source: Decennial census data compiled by Urban-Greater DC.
Notes: Am. = American; AK = Alaska; PI = Pacific Islander. Except for the multiracial category, people who selected more than one race on the census form were assigned to single-race groups, using a method described in appendix $F$, so that the individual race and ethnic groups sum to the total population. The multiracial population includes all people who selected more than one racial group.

To help readers assess the impact of the multiracial population on counting people by race, we replicated the analysis from the Neighborhood Change Database by creating three estimates for each racial group. The minimum estimate is the number of people who chose that race alone, and the maximum estimate is the number of people who selected that race alone or in combination with another race. The bridging estimate, discussed above, falls between the minimum and maximum estimates and is used in this report's tables. The minimum and maximum estimates are shown as error bars in the population charts in appendices $A$ through $D$ and can be used to judge how sensitive the population estimate for that racial group is to the bridging assumptions. If the minimum-maximum range is large, then the estimate is more dependent on whether the relevant multiracial populations are included or excluded.

Table F. 2 summarizes the region's population by race and ethnicity based on the minimum, bridged, and maximum estimates. For example, the non-Hispanic/Latinx white population ranged from 2.70 to 2.96 million, with the bridged estimate being 2.78 million. The difference between the maximum and minimum estimate for the white population was about 258,000, or 9.3 percent of the bridged estimate. The difference between the maximum and minimum estimate for the non-Hispanic/Latinx Black population was almost 123,000, or 7.4 percent of the bridged estimate.

TABLE F. 2
Minimum, Bridged, and Maximum Population Estimates by Race and Ethnicity, Greater DC Region, 2020

|  | Population |  |  | Population (\%) |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Race/Ethnicity | Minimum | Bridged | Maximum | Minimum | Bridged | Maximum |
| Total | $6,385,162$ | $6,385,162$ | $6,385,162$ | 100.0 | 100.0 | 100.0 |
| Hispanic/Latinx | $1,094,950$ | $1,094,950$ | $1,094,950$ | 17.1 | 17.1 | 17.1 |
| NH Am. Indian and AK |  |  |  |  |  |  |
| Native | 11,083 | 11,378 | 71,100 | 0.2 | 0.2 | 1.1 |
| NH Asian and PI | 698,499 | 803,603 | 821,931 | 10.9 | 12.6 | 12.9 |
| NH Black | $1,535,923$ | $1,658,715$ | $1,658,715$ | 24.1 | 26.0 | 26.0 |
| NH Multiracial | 300,816 | - | - | $4-7$ | - | - |
| NH some other race | 40,572 | 40,572 | 98,354 | 0.6 | 0.6 | 1.5 |
| NH white | $2,703,319$ | $2,775,944$ | $2,960,901$ | 42.3 | 43.5 | 46.4 |

Source: Decennial census data compiled by Urban-Greater DC for the Washington-Arlington-Alexandria, DC-VA-MD-WV, Metro Area (March 2020 definition).
Notes: NH = non-Hispanic/Latinx; Am. = American; AK = Alaska; PI = Pacific Islander. Because the maximum estimate can include people in more than one racial category, the individual groups will add up to more than the total population.

The non-Hispanic/Latinx Asian and Pacific Islander population had the second-largest range between the minimum and maximum estimates, 123,000 (15.4 percent) of the bridged estimate. The largest relative differences were for the two smallest racial groups. The non-Hispanic/Latinx American

Indian and Alaska Native population range in estimates was 60,000, or 528 percent of the bridged estimate, a result of the many people who selected this race in combination with one or more other races. Similarly, many people choosing "some other race" also combined it with another race or races, resulting in a difference of about 57,800 between minimum and maximum estimates, or 142 percent of the bridged estimate.

Finally, as a general note, although the race and ethnicity questions on the American Community Survey questionnaire are similar to those used on the decennial census form, the Census Bureau does not provide the same 63 detailed multiracial tabulations for the American Community Survey as it does for the decennial census. Therefore, the racial bridging method used here cannot be exactly replicated with American Community Survey data.

## Notes

1 For this report, the Greater DC region is defined as the Washington-Arlington-Alexandria, DC-VA-MD-WV, Metropolitan Statistical Area, which consists of 25 counties and county-equivalent areas delineated by the Office of Management and Budget as of March 2020 (https://www.census.gov/programs-surveys/metro-micro/geographies/geographic-reference-files.2020.html). We use this same definition for the region regardless of the decennial census data year reported.

2 "Structural Racism Explainer Collection," Urban Institute, accessed January 4, 2022, https://www.urban.org/racial-equity-analytics-lab/structural-racism-explainer-collection.
3 Unless noted otherwise, jurisdictions in the Greater DC region are listed in alphabetical order in tables and charts.

4 Unless noted otherwise, racial and ethnic groups are listed in alphabetical order in tables and charts.
5 Julie Zauzmer Weil, "D.C.'s New Ward Boundaries Head to Mayor's Desk," Washington Post, December 21, 2021, https://www.washingtonpost.com/dc-md-va/2021/12/21/dc-redistricting-vote-map-wards/

6 Ward Redistricting Emergency Amendment Act of 2021, D.C. Act 24-0264 (December 29, 2021), https://lims.dccouncil.us/Legislation/B24-0576.
7 The 2000 census had an online option ("Internet Data Collection: Final Report," August 14, 2002, https://www.census.gov/pred/www/rpts/A.2.b.pdf), but its use was limited to only 63,056 households (169,257 people).
8 Issie Lapowsky, "The Challenge of America's First Online Census," Wired, February 6, 2019, https://www.wired.com/story/us-census-2020-goes-digital/.
9 "The 2020 Census Is Ready for America to Respond" (press release), US Census Bureau, March 11, 2020, https://www.census.gov/newsroom/press-releases/2020/invitations-to-respond.html.
${ }^{10}$ Lapowsky, "The Challenge of America's First Online Census."
${ }^{11}$ Lapowsky, "The Challenge of America's First Online Census."
12 Margaret Harding McGill, "'Online First' Census Must Navigate Digital Divide," Axios, March 9, 2020, https://www.axios.com/online-first-census-must-navigate-digital-divide-78a768df-2cfb-4c88-9a53ecb81bc3b846.html.
${ }^{13}$ Data Explorer, Urban-Greater DC, accessed January 4, 2022, https://greaterdc.urban.org/data-explorer?geography=tr10\&indicator=PctBroadband\&topic=connection\&year=2014-18.
14 McGill, "'Online First' Census Must Navigate Digital Divide."
15 "Census Bureau Announces Areas to Receive 2020 Census Paper Questionnaires First, and Areas to Receive Bilingual Invitations" (press release), US Census Bureau, November 18, 2019, https://www.census.gov/newsroom/press-releases/2019/contact-strategies-viewer.html.

16 John Kahan, "It's Time for a New Approach for Mapping Broadband Data to Better Serve Americans," Microsoft on the Issues (blog), April 8, 2019, https://blogs.microsoft.com/on-the-issues/2019/04/08/its-time-for-a-new-approach-for-mapping-broadband-data-to-better-serve-americans/.

17 "Census Bureau Mails Additional Questionnaire to Households That Have Not Yet Responded to the 2020 Census" (press release), US Census Bureau, September 3, 2020, https://www.census.gov/newsroom/press-releases/2020/census-bureau-mails-additional-questionnaire-to-households.html.

18 Andrew Keller and Ryan King, "How We Unduplicated Responses in the 2020 Census," Random Samplings (blog), April 22, 2021, https://www.census.gov/newsroom/blogs/randomsamplings/2021/04/how_we_unduplicated.html.

19 Hansi Lo Wang, "Trump's Proposed Census Citizenship Question Bucks Centuries of Precedent," National Public Radio, May 22, 2019, https://www.npr.org/2019/05/22/719159163/has-the-u-s-census-ever-asked-about-everyones-citizenship-status.

20 Hansi Lo Wang and Renee Klahr, "See 200 Years of Twists and Turns of Census Citizenship Questions," National Public Radio, April 23, 2019, https://www.npr.org/2019/04/23/630562915/see-200-years-of-twists-and-turns-of-census-citizenship-questions.
${ }^{21}$ Michael Wines, "A Census Whodunit: Why Was the Citizenship Question Added?," New York Times, November 30, 2019, https://www.nytimes.com/2019/11/30/us/census-citizenship-question-hofeller.html.
22 Vincent P. Barabba, Martha Farnsworth Riche, Kenneth Prewitt, Steven H. Murdock, Robert M. Groves, and John Thompson, letter to the Honorable Wilbur L. Ross, Secretary of Commerce, January 26, 2018, https://www.washingtonpost.com/r/2010-2019/WashingtonPost/2018/03/27/EditorialOpinion/Graphics/DOJ_census_ques_request_Former_Directors_Itr_to_Ross.pdf.
${ }^{23}$ David Shepardson, "Trump Official Misled Congress about Census Citizenship Question: Probe," Reuters, July 19, 2021, https://www.reuters.com/world/us/us-declined-prosecute-trump-commerce-chief-after-watchdog-findings-2021-07-19/.
${ }^{24}$ Nina Totenberg and Hansi Lo Wang, "Trump Threatens Census Delay after Supreme Court Leaves Citizenship Question Blocked," National Public Radio, June 27, 2019, https://www.npr.org/2019/06/27/717635291/supreme-court-leaves-citizenship-question-blocked-from-2020-census.
${ }^{25}$ Executive Order 13880, "Collecting Information about Citizenship Status in Connection with the Decennial Census," July 11, 2019, https://www.federalregister.gov/documents/2019/07/16/2019-15222/collecting-information-about-citizenship-status-in-connection-with-the-decennial-census; "Excluding Illegal Aliens from the Apportionment Base following the 2020 Census," Memorandum for the Secretary of Commerce, July 21, 2020, https://www.federalregister.gov/documents/2020/07/23/2020-16216/excluding-illegal-aliens-from-the-apportionment-base-following-the-2020-census.
${ }^{26}$ Executive Order 13986, "Ensuring a Lawful and Accurate Enumeration and Apportionment Pursuant to the Decennial Census," January 20, 2021, https://www.federalregister.gov/documents/2021/01/25/2021-01755/ensuring-a-lawful-and-accurate-enumeration-and-apportionment-pursuant-to-the-decennial-census.
27 "US Census 2020: Will Trump's Citizenship Data Order Work?," BBC News, July 12, 2019, https://www.youtube.com/watch?v=kOChF65bp5g.
28 Ben Fox, "Trump Leaves Mark on Immigration Policy, Some of It Lasting," AP News, December 30, 2020, https://apnews.com/article/joe-biden-donald-trump-politics-immigration-united-statesa5bfcbea280a468b431a02e82c15a150.

29 "U.S. Census Bureau Director Steven Dillingham on Operational Updates" (press release), US Census Bureau, March 18, 2020, https://www.census.gov/newsroom/press-releases/2020/operational-update.html.
${ }^{30}$ Hansi Lo Wang, "How Trump Officials Cut the 2020 Census Short amid the Pandemic," National Public Radio, September 18, 2020, https://www.npr.org/2020/09/18/911960963/how-trump-officials-cut-the-2020-census-short-amid-the-pandemic.
${ }^{31}$ Wang, "How Trump Officials Cut the 2020 Census Short amid the Pandemic."

32 Hansi Lo Wang, "Mail Delays Could Hurt the Census, Too," National Public Radio, August 20, 2020, https://www.npr.org/2020/08/20/902774632/mail-delays-could-hurt-the-census-too.
${ }^{33}$ Declaration of Albert Fontenot, annotated by Hansi Lo Wang, September 4, 2020,
https://www.documentcloud.org/documents/7203072-National-Urban-League-Sept-4-2020-Declarationof.html\#document/p29/a580904.
${ }^{34}$ Hansi Lo Wang, "Leak Reveals Warnings inside Census That Shortened Schedule Risks 'Serious Errors,'" National Public Radio, September 2, 2020, https://www.npr.org/2020/09/02/908852878/leak-reveals-warnings-inside-census-that-shortened-schedule-risks-serious-errors.

35 "Census Bureau Statement on 2020 Census Data Collection Ending" (press release), US Census Bureau, October 13, 2020, https://www.census.gov/newsroom/press-releases/2020/2020-census-data-collection-ending.html.
36 "2020 Census Apportionment Results," US Census Bureau, April 26, 2021, https://www.census.gov/data/tables/2020/dec/2020-apportionment-data.html.

37 "2020 Census Redistricting Data Files Press Kit," US Census Bureau, August 12, 2021, https://www.census.gov/newsroom/press-kits/2021/2020-census-redistricting.html.

38 "Definitions and Explanations," US Census Bureau, n.d., https://www.census.gov/housing/hvs/definitions.pdf.
39 Deborah Stempowski and James Christy, "2020 Census Group Quarters," Random Samplings (blog), March 16, 2021, https://www.census.gov/newsroom/blogs/random-samplings/2021/03/2020-census-groupquarters.html.
40 Stempowski and Christy, " 2020 Census Group Quarters."
${ }^{41}$ Priya Chidambaram and Rachel Garfield, "Nursing Homes Experienced Steeper Increase in COVID-19 Cases and Deaths in August 2021 than Rest of Country," Kaiser Family Foundation, October 1, 2021, https://www.kff.org/coronavirus-covid-19/issue-brief/nursing-homes-experienced-steeper-increase-in-covid-19-cases-and-deaths-in-august-2021-than-the-rest-of-the-country/.

42 "Counting College Students," US Census Bureau, March 26, 2020, https://www.census.gov/library/fact-sheets/2020/dec/counting-college-students.html.
${ }^{43}$ Keller and King, "How We Unduplicated Responses in the 2020 Census."
${ }^{44}$ Mike Schneider, "Census: 1 in 5 Dorms, Prisons Had No Data at End of US Count," AP News, July 31, 2021, https://apnews.com/article/business-health-prisons-coronavirus-pandemic-census-20208aa6f965ce534a5d9b3dff1e90e2207d.
45 "Our Privacy Principles," US Census Bureau, last revised October 8, 2021, https://www.census.gov/about/policies/privacy/data_stewardship/our_privacy_principles.html.
46 John M. Abowd and Victoria A. Velkoff, "Modernizing Privacy Protections for the 2020 Census: Next Steps," Random Samplings (blog), April 28, 2021, https://www.census.gov/newsroom/blogs/randomsamplings/2021/04/modernizing_privacy.html.
${ }^{47}$ Christopher T. Kenny, Shiro Kuriwaki, Cory McCartan, Evan Rosenman, Tyler Simko, and Kosuke Imai, "The Impact of the U.S. Census Disclosure Avoidance System on Redistricting and Voting Rights Analysis," Harvard University, May 28, 2021, https://redistrictingonline.org/wp-content/uploads/2021/03/MA-Harvard-DAS-Evaluation-052821.pdf.
${ }^{48}$ David Van Riper, Jonathan Schroeder, and Steven Ruggles, "Feedback on the April 2021 Census Demonstration Files," University of Minnesota, May 28, 2021, https://redistrictingonline.org/wp-content/uploads/2021/03/MN-IPUMS-univ-minnesota-census-DP-DAS-study-052821.pdf.

49 "Census Bureau Sets Key Parameters to Protect Privacy in 2020 Census Results" (press release), US Census Bureau, June 9, 2021, https://www.census.gov/newsroom/press-releases/2021/2020-census-keyparameters.html.

50 "Counting Hard-to-Count Populations," US Census Bureau, July 2019, https://www.census.gov/library/working-papers/2019/demo/2020-brief.html.

51 "2020 Census Non-English Language Support Press Kit," US Census Bureau, 2021, https://www.census.gov/newsroom/press-kits/2020/2020-non-english-language-support.html.

52 "2020 Decennial Census: Conducting and Motivating the Count: Complete Count Committees," US Census Bureau, last revised November 24, 2021, https://www.census.gov/programs-surveys/decennial-census/decade/2020/planning-management/count/complete_count.html.
53 "Interventions that Work: 2020 Census and Hard-to-Reach Communities," Metropolitan Washington Council of Governments, June 6, 2019, https://www.mwcog.org/2020census/.

54 "2019: Our Region, Our Giving: Giving in the Greater Washington Region: Featuring a Special Look at the 2020 Census," Washington Regional Association of Grantmakers, November 2019,
https://www.washingtongrantmakers.org/sites/default/files/resources/2019\ 0ur\ Region\%2C\ 0ur \%20Giving.pdf.

55 "Every Voice Counts: Count the Region: Building Community, Trust, and Understanding through the 2020 Decennial Census," Community Foundation for Northern Virginia, February 18, 2021, https://www.cfnova.org/images/CFNOVA_CountTheRegionFinalReport.pdf.
56 "CountDMVIn Census 2020: Community Action in the Washington, DC Region," 2020 Census Working Group of the Washington Regional Association of Grantmakers, October 2021, https://www.washingtongrantmakers.org/sites/default/files/files/pages/Count\ DMVIn\ Census\ 202 0\%20Report.pdf.
57 "Census Bureau Releases Estimates of Undercount and Overcount in the 2010 Census" (press release), US Census Bureau, May 22, 2012, https://www.census.gov/newsroom/releases/archives/2010_census/cb1295.html.

58 "2020 Decennial Census Data Quality," US Census Bureau, last revised December 14, 2021, https://www.census.gov/programs-surveys/decennial-census/decade/2020/planning-management/process/data-quality.html.

59 "2020 Census: Tracking Response and Nonresponse Followup for Housing Units by State," US Census Bureau, October 28, 2020, https://www.census.gov/library/visualizations/interactive/2020-census-total-response-rates-by-state.html.
60 Pat Cantwell, "How We Complete the Census When Households or Group Quarters Don't Respond," Random Samplings (blog), April 16, 2021, https://www.census.gov/newsroom/blogs/random-samplings/2021/04/imputation-when-households-or-group-quarters-dont-respond.html.
${ }^{61}$ Eric Jensen and Sandra Johnson, "Using Demographic Benchmarks to Help Evaluate 2020 Census Results," Random Samplings (blog), November 9, 2021, https://www.census.gov/newsroom/blogs/random-samplings/2021/11/demographic-benchmarks-2020-census.html.

62 Pat Cantwell, "How We Complete the Census When Households or Group Quarters Don't Respond," US Census Bureau Random Samplings (blog), April 16, 2021, https://www.census.gov/newsroom/blogs/random-samplings/2021/04/imputation-when-households-or-group-quarters-dont-respond.html.
${ }^{63}$ This tract is composed of the US Army's Joint Base Myer-Henderson Hall. The tract has only 63 housing units, and more than 90 percent of the population lives in group quarters ("Group Quarters Population American

Community Survey 5-Year Estimates," Census Reporter, accessed January 4, 2022, https://censusreporter.org/data/table/?table=B26001\&geo_ids=14000US51013103401\&primary_geo_id=140 OOUS51013103401).

64 Beth Jarosz and Paola Scommegna, "Why Are They Asking That? What Everyone Needs to Know about 2020
Census Questions," Population Reference Bureau, March 23, 2019, https://www.prb.org/resources/why-are-they-asking-that-what-everyone-needs-to-know-about-2020-census-questions/.

## References

Biemer, Paul, Joseph Salvo, and Jonathan Auerbach. 2021. The Quality of the 2020 Census: An Independent Assessment of Census Bureau Activities Critical to Data Quality. Alexandria, VA: American Statistical Association.

Brown, J. David, Misty L. Heggeness, Suzanne M. Dorinski, Lawrence Warren, and Moises Yi. 2018. Understanding the Quality of Alternative Citizenship Data Sources for the 2020 Census. Washington, DC: US Census Bureau, Center for Economic Studies.

Census (US Census Bureau). 2021a. "Decennial Census P.L. 94-171 Redistricting Data." Washington, DC: US Census Bureau.
——. 2021b. Disclosure Avoidance for the 2020 Census: An Introduction. Washington, DC: US Census Bureau.
__ 2021c. "2020 Census." Washington, DC: US Census Bureau.
__ n.d. "2020 Census Residence Criteria and Residence Situations." Washington, DC: US Census Bureau.
Elliott, Diana, Steven Martin, Jessica Shakesprere, and Jessica Kelly. 2021. Simulating the 2020 Census: Miscounts and the Fairness of Outcomes. Washington, DC: Urban Institute.

GAO (Government Accountability Office). 2021. "2020 Census: Innovations Helped with Implementation, but Bureau Can Do More to Realize Future Benefits." GAO-21-478. Washington, DC: Government Accountability Office.

Kulzick, Robert, Laura Kail, Shawnna Mullenax, Hubert Shang, Brian Kriz, Gina Walejko, Monica Vines, Nancy Bates, Steven Scheid, and Yazmín García Trejo. 2019.2020 Census Predictive Models and Audience Segmentation Report. Washington, DC: US Department of Commerce, US Census Bureau.

Lopez, Mark Hugo, Ana Gonzalez-Barrera, and Jens Manuel Krogstad. 2018. More Latinos Have Serious Concerns about Their Place in America under Trump. Washington, DC: Pew Research Center.

Lujan, Carol. 1990. "As Simple as One, Two, Three: Census Underenumeration among the American Indians and Alaska Natives." Washington, DC: US Census Bureau.

Our Documents. n.d. "Transcript of 14th Amendment to the U.S. Constitution: Civil Rights (1868)." Washington, DC: Our Documents.

Ruggles, Steven, and David Van Riper. 2021. "The Role of Chance in the Census Bureau Database Reconstruction Experiment." Population Research and Policy Review. https://doi.org/10.1007/s11113-021-09674-3.
Van Riper, David, Tracy Kugler, and Steven Ruggles. 2020. "Disclosure Avoidance in the Census Bureau's 2010 Demonstration Data Product." In Privacy in Statistical Databases, edited by Josep Domingo-Ferrer and Krishnamurty Muralidhar, 353-68. https://doi.org/10.1007/978-3-030-57521-2_25.

Wolf, Thomas, and Brianna Cea. 2019. "A Critical History of the U.S. Census \& Citizenship Questions." New York: Brennan Center for Justice.

## About the Authors

Peter A. Tatian is a senior fellow at the Urban Institute and research director for Urban-Greater DC. He is a member of the DC Local Initiatives Support Corporation advisory committee, the Park Morton New Communities steering committee, and the United Planning Organization community reinvestment advisory council.

## STATEMENT OF INDEPENDENCE

The Urban Institute strives to meet the highest standards of integrity and quality in its research and analyses and in the evidence-based policy recommendations offered by its researchers and experts. We believe that operating consistent with the values of independence, rigor, and transparency is essential to maintaining those standards. As an organization, the Urban Institute does not take positions on issues, but it does empower and support its experts in sharing their own evidence-based views and policy recommendations that have been shaped by scholarship. Funders do not determine our research findings or the insights and recommendations of our experts. Urban scholars and experts are expected to be objective and follow the evidence wherever it may lead.

```
\therefore:URBAN
....institute.ebevate.tme.debatm
:......
```

500 L’Enfant Plaza SW
Washington, DC 20024


[^0]:    Source: Decennial census data compiled by Urban-Greater DC for the Washington-Arlington-Alexandria, DC-VA-MD-WV, Metro Area (March 2020 definition).

[^1]:    Source: Decennial census data compiled by Urban-Greater DC for the Washington-Arlington-Alexandria, DC-VA-MD-WV, Metro Area (March 2020 definition).

[^2]:    Source: Decennial census data compiled by Urban-Greater DC for the Washington-Arlington-Alexandria, DC-VA-MD-WV, Metro Area (March 2020 definition).

[^3]:    Source: Decennial census data compiled by Urban-Greater DC.

[^4]:    Source: Decennial census data compiled by Urban-Greater DC

