

Assessing the Risk of a 2020 Census Undercount in the District of Columbia

by Travis Pate, Demographic Specialist
DC Office of Planning

INTRODUCTION

For the 2020 Census, the U.S. Census Bureau is relying on most households to respond to the Census questionnaire through the internet.¹ Prior decennial Census counts have relied on paper questionnaires that are mailed to all U.S. residential addresses, and the shift to online questionnaires is likely to result in a significant undercount of District households who lack internet access. The COVID-19 public health emergency has further exacerbated the risk of an undercount by limiting the District's efforts to directly engage populations who have limited internet access. The risk of an undercount of the District's population is concerning, particularly for groups such as minorities, seniors, and low-income households. The results of the Census will guide federal funded programs in the District for the next decade as well as help determine how to allocate local resources. Census-guided federal



funding was \$6 billion in FY 2017 for the District of Columbia² and impacts programs such as education, housing, youth and senior initiatives, employment services, and health. While it is difficult to measure the direct fiscal impact of a state's decennial census undercount from federal funds allocation, it is undeniable that a population undercount results in a significant negative fiscal impact especially on the most vulnerable populations.

Given the Census Bureau's shift to an online questionnaire, understanding the extent to which households have access to the internet is critical as is understanding which types of households lack access. This report uses the 2014-2018 American Community Survey 5-Year Estimates to understand the different levels of internet access within the District and across several key demographic indicators as potential leading indicators of whether the 2020 Census will accurately capture the District of Columbia's population. Not all indicators that were analyzed are presented here but are available upon request.³ This report will help identify who is likely to be undercounted in the 2020 Census in the District. Additionally, this report may help lay the groundwork to determine if the results of the 2020 Census need to be challenged through the U.S. Census Bureau's Count Question Resolution Program.⁴

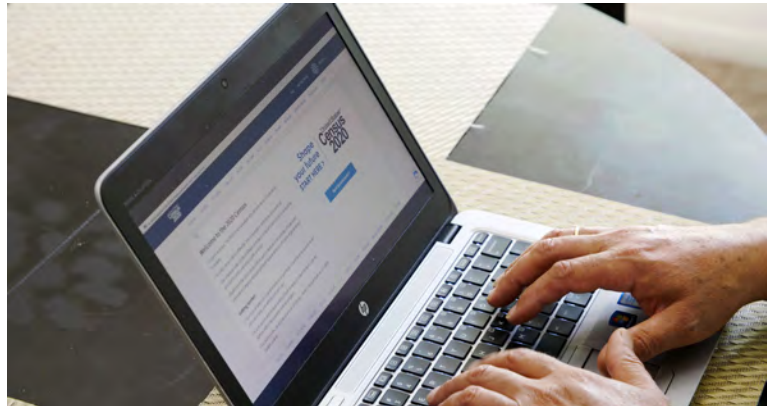
KEY FINDINGS

- ❑ Disparities exist across the District in terms of access to the internet, which may be having an impact on households' ability to respond to the 2020 Census and ultimately lead to an undercount of our vulnerable communities.
- ❑ As of August 31st, 2020 the highest overall self-response rate recorded for Wards is Ward 3 with 73% and the lowest is Ward 8 with 48%.
- ❑ 84% of all households in the District have access to the internet. At the Ward level, the percentage of households that have access to the internet ranges from a low of 69% in Ward 7 to a high of 95% in Ward 3.
- ❑ Differences exist across racial and ethnicity groups in terms of internet access. Of the larger population groups, White and Asian households have the highest percentage of internet access. Black/African American and Hispanic/Latino (of any race) households have the lowest percentages of internet access.
- ❑ The population 65 years and over was less likely to have internet access as compared to other age groups.
- ❑ Income seems to have a strong correlation to internet access in the household. Across the District, 49% of households that make less than \$20,000 have an internet subscription compared to 96% of households that make \$75,000 or more.
- ❑ With federal funding at stake, the District may consider a challenge to the 2020 Census results to address undercounting in key populations.

THE 2020 CENSUS SELF-RESPONSE RATE IN THE DISTRICT

It is important to understand the procedure the Census Bureau uses to conduct the Census and the role household internet access plays. The initial phase of the Census count relies on households to self-respond by filling out the questionnaire and returning the information to the Census Bureau. If households do not self-respond by a certain date, Census takers will be sent to their door to try to collect the information. As a census taker in 2010, the author found the process frustrating. Households may not be available for a number of reasons (out of town, odd work hours) or household

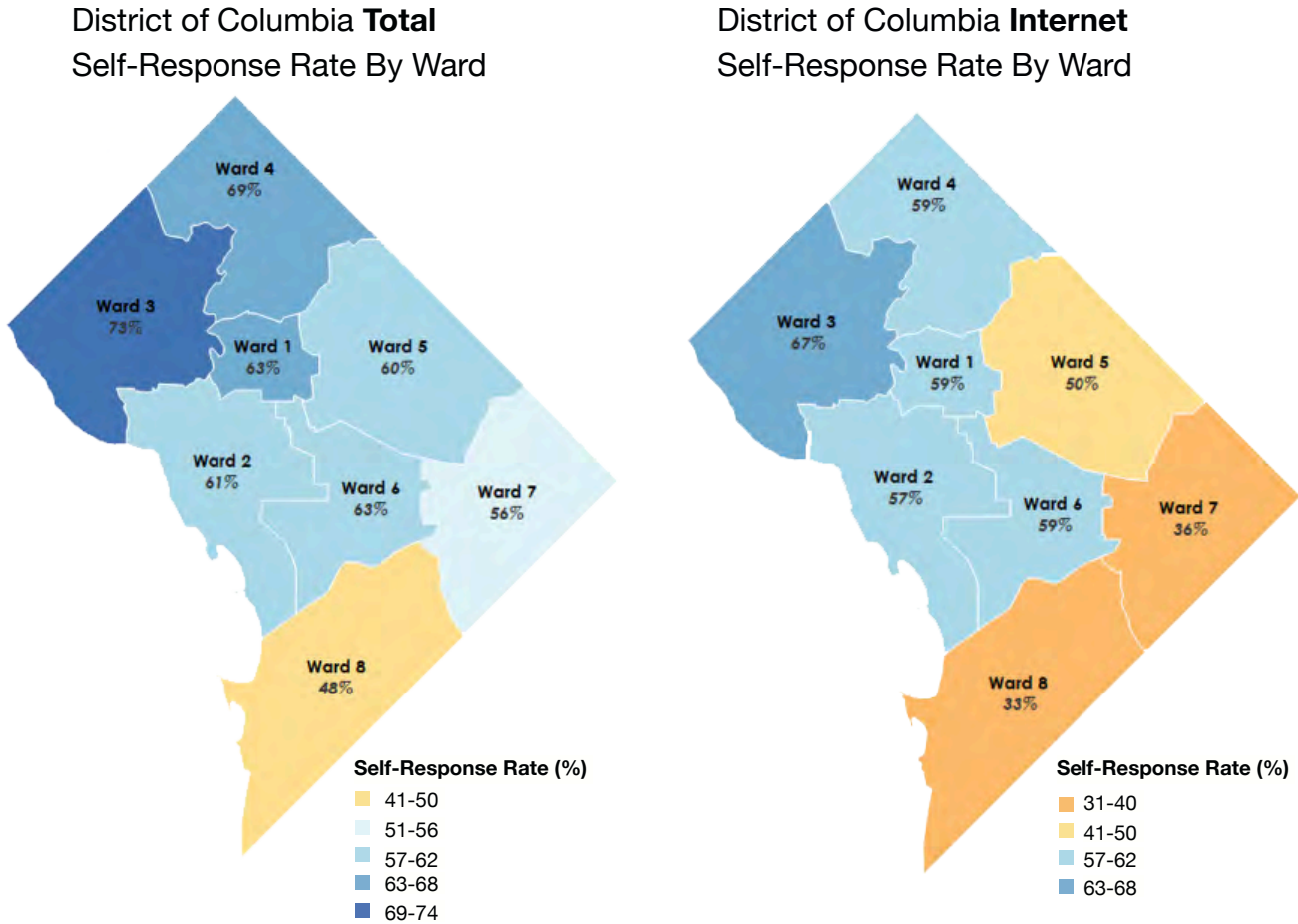
members may not wish to share personal information with a stranger. If a household member is unavailable or uncooperative, the census taker will try to obtain the information from a proxy (typically a neighbor). A neighbor may not know the correct information to



provide to the Census taker. A study of the 2010 Census found that 23.1% of Census takers' questionnaires taken by proxy lacked adequate information and needed to be imputed by the Census Bureau⁵. This is why self-response is the most reliable way to fill out the questionnaire and leads to the most accurate Census count. As stated before, the Census Bureau is heavily relying on households to self-respond by use of the online questionnaire.

The District's current self-response rates in the 2020 Census reflect dual challenges of the shift to the online questionnaire and the difficulty in outreach and promotion during the COVID-19 public health emergency. The maps in Figure 1 show the District's total self-response rate (calculated from all means of response, including internet, mail-in, and telephone responses) and the self-response rate of those who used the internet to fill out the 2020 Census questionnaire (as of 8/31/20). Wards 1, 2, 3 and 6 are within 6% between the total self-response rate and the internet self-response rate. Wards 4 and 5 differ by 10%. Wards 7 and 8 show that 20% and 15% of those respective Wards' population responded by paper questionnaire or telephone. As of August 31st, the highest overall self-response rate recorded for Wards is Ward 3 with 73% and the lowest is Ward 8 with 48%. Out of the approximately 30,000 households in Ward 8, this means 14,400 households still need to be counted before Census operations end in October.

Figure 1: District of Columbia - 2020 Census Response Rates by Ward (as of 8/31/20)



Source: U.S. Census Bureau, 2020 Census Self-Response Data, calculated by the Office of Planning

Before the 2020 Census began, the Census Bureau acknowledged that some households may be less likely to respond to the Census online and mailed paper questionnaires to these areas. The Census Bureau focused its mailed paper questionnaire outreach based on areas that had lower self-response rates in previous years and areas that have either low internet response, high populations of people aged 65 or older, and low internet subscriptions.⁶ According to the map of mail contact strategies included in the source above, most of the households in Wards 7 and 8 should have been mailed paper questionnaires along with a few areas in Wards 4 and 5. The response rate data seem to show that households in Wards 7 and 8 are using these paper questionnaires to respond. However, Wards 2, 5, 7 and 8 total response rates (combination of all response types) are currently significantly lower than some other Wards.

The onset of the COVID-19 public health emergency has hampered the District’s plans to directly engage with populations who have limited internet access. The District of Columbia had planned to make internet access easier by placing workers with handheld devices at public venues and events in communities with low internet access. When the public health emergency began, the District and its community partners were forced to cancel community meetings and events where many of the networking efforts were planned to take place. The Census Bureau began sending Census takers to visit households in the District that had not responded by any methods starting August 6th. The Census Bureau has extended the time for field work until October 31st due to COVID-19.

INTERNET ACCESS BY WARD

Many households in Wards with lower rates of access to the internet, especially Ward 7 and Ward 8, must rely on returning mail-in questionnaires or calling the Census Bureau to submit their household characteristics which are more burdensome and time consuming compared to answering the online questionnaire. Figure 2 shows a breakdown of how the District’s households are accessing, or not accessing, the internet at the citywide level and the Ward level. While the District’s overall internet access level is 80%, access to the internet across the city ranges from 95% in Ward 3 to 69% in Ward 7. Paid internet subscriptions account for how 80% of households in DC gain access to the internet and ranges from 93% in Ward 3 to 59% in Ward 7. While many households gain access to the internet through District programs, such as free Wi-Fi hotspots located indoors and outdoors at important community anchor locations such as libraries and recreation centers⁷, many of these public facilities have either closed or reduced their hours of operation significantly during the COVID-19 public health emergency. The data reveal that an average of 4% of the District’s households access the internet without a subscription with the highest rate being 10% of households in Ward 7.

In addition, 16% of the District’s households, or approximately 45,000 households, do not have access to the internet. As shown in Figure 2, nearly one-third of households in Wards 7 and 8, 22% of Ward 5 households, and 16% of Ward 4 households do not have access to the internet. It is difficult to examine demographic characteristic of households with no internet access because the Census Bureau does not provide those summary data. The summary statistics produced by the Census Bureau focus on cross-referencing socioeconomic indicators with internet subscription data. Since categorical data are lacking for households strictly with or without internet access, this report uses internet subscriptions as a proxy for ‘internet access.’

Figure 2: District of Columbia - Internet Access in Households

	DC	Ward 1	Ward 2	Ward 3	Ward 4	Ward 5	Ward 6	Ward 7	Ward 8
Internet Access	84%	87%	93%	95%	84%	78%	89%	69%	70%
With an Internet Subscription	80%	85%	91%	93%	81%	75%	86%	59%	64%
Internet Access without a Subscription	4%	2%	3%	2%	3%	3%	3%	10%	7%
No Internet Access	16%	13%	7%	5%	16%	22%	11%	31%	30%

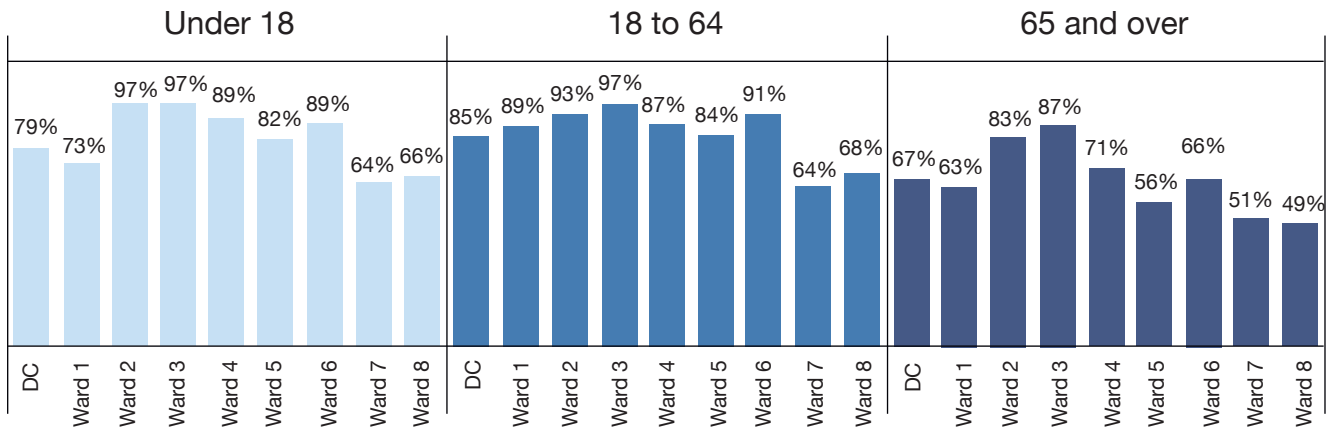
Source: U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates

INTERNET ACCESS BY AGE GROUP

Figure 3 shows the breakdown of internet access by three major age groups and by Ward. The under 18 years old age group averages an internet access rate of 79% for the city and ranges from a high of 97% of households with a subscription in Wards 3 and 4 with a low of 64% in Ward 7. The data for the age group 18 to 64 years old reveal similar differences between Wards as the under 18 age group. In contrast, the 65 years old and over age group shows the lowest percentage of internet subscription citywide and among Wards compared to the other two age groups. These may explain some of the discrepancy between internet response rates and total response rates in Wards 5, 7, and 8. A notable exception for the 65 years old and over age group is that Wards 2 and 3 have both high internet subscriptions.

Examining these data on age groups reveal several issues for the 2020 Census. First, the Census has acknowledged problems of undercounting children in the past.⁸ In one way, it is reassuring that the highest percentage of households with internet subscriptions are those with children. However, there are still important gaps in access for households with children including in Wards 1, 5, 7, and 8. This last point may further lead to the undercounting of children of color (Hispanic/Latino children in Ward 1, and Black/African American children in Wards 7 and 8). In addition, it is concerning that intergenerational families, where grandparents are taking care of grandchildren, may have a more difficult time responding to the Census since they are less likely to have internet access. Making sure families with children are not undercounted will go a long way to ensure the District receives its share of federal funding aimed to support them.

Figure 3: Percent of Population in Households with an Internet Subscription in the Household by Age Group



Source: U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates

INTERNET ACCESS BY RACE AND ETHNICITY

Figure 4 shows a range of internet subscription rates of citywide averages from 70% for the Black/African Americans and Other populations to 96% for the White population. The data reveal the Black/African American population in Wards 7 and 8 have an internet subscription rate of 61% and 63%, respectively, which is the lowest percentage of the major racial groups. The Asian population has relatively high internet access with the exception of Wards 5 and 8. The internet subscription rates for the Hispanic/Latino population range from 69% in Ward 1 to 94% in Ward 6, with a relatively low citywide average of 79%. It is important to note that some of the racial groups included here have small population sizes and therefore these data may be skewed due to sampling error.

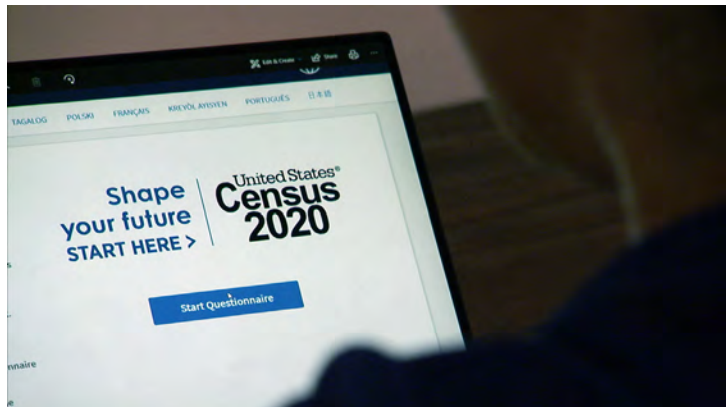


Figure 4: Internet Subscription by Race and Ethnicity

	DC	Ward 1	Ward 2	Ward 3	Ward 4	Ward 5	Ward 6	Ward 7	Ward 8
White	96%	95%	96%	96%	94%	95%	97%	93%	95%
Black	70%	72%	70%	91%	84%	74%	70%	61%	63%
American Indian	76%	55%	46%	66%	61%	95%	100%	67%	100%
Asian	92%	93%	92%	92%	99%	88%	91%	100%	76%
Native Hawaiian/ Pacific Islander	87%	100%	74%	100%	42%	80%	100%	100%	100%
Other	70%	54%	85%	94%	70%	73%	94%	75%	73%
Two or More	92%	95%	90%	96%	92%	90%	96%	81%	83%
Hispanic/Latino	79%	69%	88%	92%	75%	80%	94%	77%	76%

Source: U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates

The differences in internet subscriptions across race and ethnicity groups may lead to undercounting of minorities even in areas that are majority-minority such as Wards 7 and 8. Figure 1 shows that these two Wards as well as Ward 5 are relying on mail and phone responses to the 2020 Census more than other Wards, which also means they are relying on the accuracy of the Census Bureau’s address list to receive the questionnaire.

INTERNET ACCESS BY INCOME GROUPS

A 2017 study found that “socioeconomic inequality is the main predictor of lack of access over race, age, or gender; income is the primary predictor of whether someone has home internet access.”⁹ This supports the observation that Ward income data seems to have a strong correlation to internet subscriptions in the household, both within the same Ward and across Wards in general. Figure 5 shows the median household income for the District and Wards using the ACS 5-year estimate from 2014-2018. Wards 2, 3, and 6 incomes are around one and a half times greater median household income than the District as a whole. Ward 5 falls approximately \$14,000 below the citywide median. Wards 7 and 8 have median household incomes at half and less than half the citywide median, respectively.

Figure 5: Median Household Income

DC	Ward 1	Ward 2	Ward 3	Ward 4	Ward 5	Ward 6	Ward 7	Ward 8
\$82,604	\$99,358	\$108,670	\$126,184	\$87,487	\$68,375	\$108,967	\$41,438	\$34,034

Source: U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates

A study conducted in April of this year analyzed the impact of income (specifically instances of “high poverty” areas, defined as census tracts with more than 30% of people living below the poverty line). They found that, “the average response rate across all high poverty tracts nationwide is 34.5%, more than 12 points lower than the national average. Tracts with less than 30% of their population in poverty had an average response rate of 47%, which is above the national average.”¹⁰

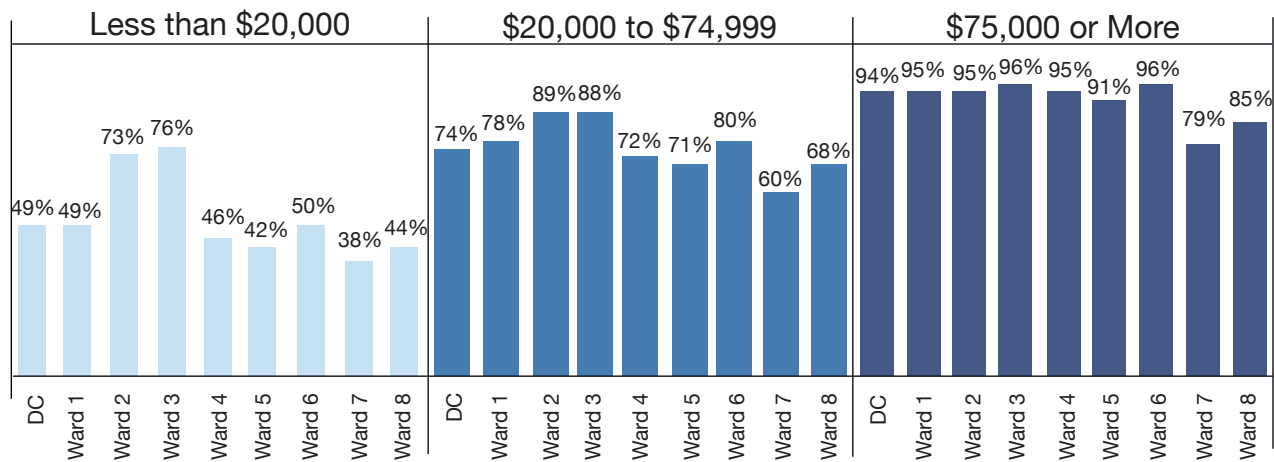


Figure 6 shows the percent of households with an internet subscription by household income for DC and Wards. Wards 2 and 3 are notable by retaining relatively high internet subscriptions across income levels, with Wards 1 and

6 showing close to average internet access. All other Wards demonstrate a trend that shows as income levels decrease, so does internet subscription rates. The largest gaps appear in Wards 4 and 5 showing nearly a 50-percentage point difference from the lowest to the highest income group. Wards 7 and 8 show the greatest disparity between their subscription rates and the average rate for the District when comparing all three income groups.

Since many of the programs funded by federal dollars support low-income households, poverty rate is one of the primary determinates of census-guided funding.¹¹ The 2020 Census will not collect data on income directly but will serve to establish the base population upon which poverty statistics will be collected. The 2020 Census will determine the starting point for funding that will extend for a decade. Undercounting the population living in poverty will potentially result in fewer federal dollars for the District’s low-income populations.

Figure 6: Internet Subscriptions by Income Groups



Source: U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates

NEXT STEPS AND CONCLUSION

The Census Bureau is expected to release the results of the 2020 Census to the states by March 31, 2021 for the purposes of redrawing legislative districts. The District of Columbia uses the Census results to redraw Ward boundaries. When the 2020 Census results are released, the District can make a determination if the population count is reliable. In 2005, the District of Columbia successfully challenged discrepancies in the 2000 Census count and subsequent annual population estimates from 2001-2005 through the U.S. Census Bureau’s Question Count Resolution Program, which is designed to allow jurisdictions to make corrections. This challenge resulted in an addition of 30,000 people to the District’s population.

The consequences of a Census undercount would likely disproportionately impact the same populations that this report shows to have reduced access to the internet. The Census data are used as a guide to direct resources to communities in need of opportunities for advancement. An undercount would result in an unfair and inequitable distribution of funds for the next decade and hinder the District’s goal to foster healthy communities where all residents have access to the resources they need to thrive.

FOOTNOTES

¹Cohn, D’Vera. “For 2020, Census Bureau plans to trade paper responses for digital ones.” February 24, 2016. <https://www.pewresearch.org/fact-tank/2016/02/24/for-2020-census-bureau-plans-to-trade-paper-responses-for-digital-ones/>

²Reamer, Andrew. Counting for Dollars 2020, Brief 7: Comprehensive Accounting of Census-Guided Federal Spending (FY2017). February 2020. https://gwipp.gwu.edu/sites/g/files/zaxdzs2181/f/downloads/Counting%20for%20Dollars%202020-%20-%20Comprehensive%20Accounting_Report%207B%20Feb%202020%20rev.pdf

³Other topics include educational attainment and labor force status.

⁴U.S. Census Bureau. Memorandum 2020.02: 2020 Census Count Question Resolution Operation Detailed Operational Plan. https://www.census.gov/programs-surveys/decennial-census/2020-census/planning-management/memo-series/2020-memo-2020_02.html

⁵Mule, Thomas. DSSD 2010 CENSUS COVERAGE MEASUREMENT MEMORANDUM SERIES #2010-G-01. May 22, 2012. <https://www2.census.gov/programs-surveys/decennial/2010/technical-documentation/methodology/g-series/g01.pdf>

⁶U.S. Census Bureau. 2020 Census: Mail Contact Strategies Viewer. <https://gis-portal.data.census.gov/arcgis/apps/webappviewer/index.html?id=7ef5c37c68a64ef3b2f1b17eb9287427>

⁷District of Columbia, Office of the Chief Technology Officer. Public WiFi, <https://octo.dc.gov/wifi>.

⁸U.S. Census Bureau. “The Undercount of Young Children.” Retrieved June 12, 2020. <https://www.census.gov/programs-surveys/decennial-census/2020-census/research-testing/undercount-of-young-children.html>

⁹Leadership Conference Education Fund. “Counting Everyone in the Digital Age.” October 11, 2017. <https://civilrights.org/edfund/resource/counting-everyone-in-the-digital-age-the-implications-of-technology-use-in-the-2020-decennial-census-for-the-count-of-disadvantaged-groups-2/>

¹⁰Center for Urban Research. “Census 2020 Response Rate Analysis: Week 3.” April 11, 2020. <https://www.gc.cuny.edu/Page-Elements/Academics-Research-Centers-Initiatives/Centers-and-Institutes/Center-for-Urban-Research/CUR-research-initiatives/Census-2020-Response-Rate-Analysis-Week-3>

¹¹See note 2.