

Chapter 8

Census Coverage of the Black Population



Abstract In the 2010 Census, the Black population had the highest net undercount rate of any major race/Hispanic group. Based on the Demographic Analysis method there was a net undercount of 2.5% for the Black Alone population compared to a net overcount of 0.5% for Non-Blacks. Black males in their 20s, 30s, and 40s had exceptionally high net undercount rates and high omissions rates. Historically, the Black population, and Black men in particular, experienced high net undercount rates in the Census. While the net undercount rates of Blacks have decreased over time, the differential net undercount between Blacks and Non-Blacks has improved little since 1940.

8.1 Introduction

Studying the U.S. Census coverage of the Black population is important because they have been undercounted in the Census for many decades and they are a large part of the U.S. population. Consequently, coverage of the Black population has a big impact on the overall accuracy of the Census.

In reporting Census data on the Black population, it is very important to be clear about how the group is defined. Starting in the 2000 Census, people were allowed to select more than one race in the Census questionnaire (U.S. Office of Management and Budget 1997) and race is often shown two different ways in Census Bureau reports. One category is the number of people who only select Black (referred to as Black Alone) and second category is all those in the first category plus those who select Black along with at least one other race (referred to as Black Alone or in Combination). In the 2016 American Community Survey conducted by the Census Bureau there were 40.9 million people who marked Black Alone and 45.1 million who marked Black Alone or Black and some additional race. The Black Alone or in Combination population comprised about 14% of the U.S. total population in 2016. Black Alone or in Combination is the most inclusive definition and its use here is consistent with advice of the U.S. Office of Management and Budget (2001) about using race classifications. Most of the data presented in this Chapter are based on the

Black Alone or in Combination definition. The term Black is used instead of African-American because it is the label used most often in Census Bureau publications.

8.2 Census Coverage of the Black Population by Age and Sex

Both methods for measuring Census accuracy (Demographic Analysis—DA and Dual-Systems Estimates—DSE) show high net undercounts for the Black population. In the 2010 Census, the net undercount rate for the Black Alone population was 2.5% based on Demographic Analysis (DA) while for Non-Blacks there was a 0.5% net overcount (Velkoff 2011). Based on Dual Systems Estimates (DSE) results, the 2010 Census shows a net undercount for the Black Alone or in Combination population of 2.1% compared to a net overcount of 0.8% for the Non-Hispanic White Alone population (U.S. Census Bureau 2012).

The overall net undercount rate for the Black population masks large differences by age and sex. For example, there was a net undercount of 4.6% for Black males compared to a 0.1% net undercount for Black females in the 2010 Census based on DA.

The Black adult male population is particularly vulnerable to net undercounts in the Census. Figure 8.1 shows net undercount rates in the 2010 Census for Black Alone males, Black Alone females, Non-Black Alone males, and Non-Black Alone females by five-year age groups based on DA. Figure 8.1 shows that Black Alone males stand out from the other groups in terms of having high net undercounts from their 20s to their 70s.

Early in life and late in life there are not big differences in the coverage rates of Black males and the other three race/sex groups shown in Fig. 8.1. However, starting in their early 20s into their 70s, the undercount differentials between Black Alone males and the other three groups are substantial. For example, at age 30 the difference in Census coverage rates between Black Alone males and Black Alone females is about 8 percentage points (net undercount rate of 8.3% for 30-year-old Black Alone males and 0% for 30-year-old Black Alone females).

This pattern is not new. High net undercount rates for Black men have been a persistent problem in the U.S. Census (Fein 1989; Hill 1975; Passel 1991; Robinson et al. 1990; Robinson 1997; Fay et al. 1988; West et al. 2014). The report on DA following the 1990 Census (U.S. Census Bureau 1991, p. 1) states,

To summarize, two groups stand out as having relatively high levels of net undercount nationally after considering the possible range of uncertainty in the estimates: 1) Black children aged 0-9 and 2) Black men aged 20-64.

Much of the public and political interest regarding Census undercounts in general and Census undercounts of Black men in particular can be traced back to publications and events in the late 1960s and early 1970s (Valentine and Valentine 1971; Heer 1968). One of the first events to publicize the high net undercount of the black

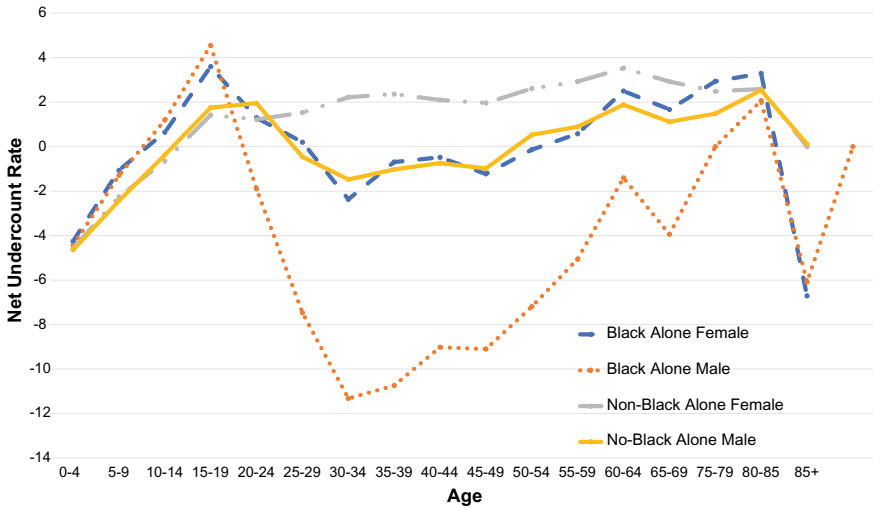


Fig. 8.1 2010 census net undercount rates by sex and Black/Non-Black by five-year age groups. Source US Census Bureau, May 2013

population was a 1968 conference organized by David Heer at the behest of Daniel Patrick Moynihan. According to Heer (1968, p. 2) “Moynihan asked me if I would plan a conference that would (1) publicize the fact that many Negroes had not been counted in the 1960 census, and (2) attempt to rouse national concern about the matter.”

One crucial study was that of Hill (1975) who used a synthetic estimation technique and age/sex/race net undercount estimates from the 1970 Census to produce net undercount estimates for large cities. These estimates showed that many large cities had relatively high net undercounts largely because they housed a disproportionately large share of Black males. Hill’s study documented something many big-city mayors suspected but had been unable to quantify or demonstrate previously.

To some extent the studies cited above, and other similar studies, launched a series of efforts by the Census Bureau to address differential undercounts (Choldin 1994). Those efforts involved advocating for adjustment of Census results based on net undercounts and better Census outreach in the Black community (see Chap. 13 for more details on this topic).

Table 8.1 shows net undercount rates by age and sex for Black Alone or in Combination and Non-Hispanic White Alone from DSE and they underscore the pattern shown in Fig. 8.1. Data for the youngest ages (0–9) are not presented in Table 8.1 because there is strong evidence that the coverage estimates of young children from DSE in 2010 are problematic (O’Hare et al. 2016).

There are three main points that can be drawn from the data in Table 8.1. First, the Black Alone or in Combination population were generally undercounted while the Non-Hispanic White Alone population was over counted. Second, Black Alone

Table 8.1 Net undercount rates for the Black Alone or in combination and Non-Hispanic White Alone populations in the 2010 census by age and sex

	Black Alone or in combination	Non-Hispanic White Alone
Total	-2.1	0.8
Age 10–17	-0.1	1.8
18–29 males	-5.9	1.5
18–29 females	0.4	1.1
30–49 males	-10.0	-2.1
30–49 females	0.2	0.7
50+ males	-2.8	0.6
50+ females	3.1	2.2

Source US Census Bureau (2012). Table C

A negative sign reflects an undercount. The signs here are reversed from the source report in order to keep directionality consistent within this publication

Figures in **BOLD** are statistically significantly different from zero

or in Combination males were undercounted at a higher rate than Black Alone or in Combination females. Third, both Black Alone or in Combination and White Alone or in Combination females over age 50 have relatively high net overcount rates.

Data in Table 8.1 show net undercount rates for Black Alone or in Combination males in their 30s and 40 were among the highest recorded in the 2010 Census. Table 8.1 shows the net undercount rate for Blacks Alone or in Combination males age 18–29 was 5.9% and for Black Alone males age 30–49 was 10.0%. The results of the DA methodology are consistent with the DSE results. DA shows a net undercount rate for Black Alone males age 18–49 was 7.6%.

8.3 Census Coverage of Black Children

As noted in Chap. 5, the population age 0–4 had a higher net undercount rate than any other age group in the 2010 Census. There was a high net undercount of young Black children but the net undercount for Black Alone differs strikingly from Black Alone or in Combination. For the population age 0–4 the net undercount rate in the 2010 Census for Black Alone was 4.4% compared to 6.3% for Black Alone or in Combination (O’Hare 2015). Both rates are very high compared to other groups.

Much of the difference between Black Alone and Black Alone or in Combination net undercount rates probably stems from difficulties trying to make the race classifications based on birth certificates consistent with the race classifications based on self-reporting in the Census. Recall that race of a newborn on the birth certificate is assigned based on the race or the parents. Reconciling race from the Census and birth certificates has become more challenging since 2003 when the new birth certificates

were introduced which allowed parents to mark more than one race. Complications with making race categories consistent between the Census and vital events were discussed in Chap. 3.

8.4 Census Omissions Rates for the Black Population

Recall that the net Census undercount rate is a balance between people omitted and those included erroneously (mostly double counted). The omissions rate captures the share of a group missed in the Census. DSE is the only method that shows omissions rates.

In many ways the omissions rate is a more meaningful statistic because in the net undercount calculation, omissions can be cancelled out by erroneous inclusions or double counting. A net undercount of zero could be the result of no one missed and no one double counted, or for example, ten% missed, and ten% double counted.

Table 8.2 shows the omissions rates for the Black Alone or in Combination population and the Non-Hispanic White Alone population by age and sex based on the DSE method. The omissions rate for the Black Alone or in Combination population in the 2010 Census was 9.3% compared to 3.8% for the Non-Hispanic White Alone population. But the omissions rate for the entire population masks substantial variations within age/sex subgroups of the population. Data for young children are not provided here because undercount estimates for young children from the DSE method are problematic (O’Hare et al. 2016).

The omissions rates shown in Table 8.2 follow a familiar pattern. In every demographic category examined in Table 8.2 the omissions rate for Blacks Alone or in Combination was higher than that of Non-Hispanic White Alone. In several cases the omissions rates for Blacks Alone or in Combination were more than twice as high as the rate for Non-Hispanic Whites Alone in the same category. The omissions

Table 8.2 Omissions rates for Black Alone or in combination population and Non-Hispanic White Alone in the 2010 census by age and sex

	Black Alone or in combination	Non-Hispanic White Alone
Total	9.3	3.8
Age 10–17	6.9	3.1
18–29 male	15.6	6.6
18–29 female	9.7	6.2
30–49 male	16.7	6.2
30–49 female	6.2	3.0
50+ male	9.2	3.5
50+ female	2.8	1.7

Source US Census Bureau (2012). Table C

rate for Blacks Alone or in Combination males age 18–29 was 15.6% and for age 30–49 it was 16.7%. Data in Table 8.2 reinforces the very precarious situation of Black men age 18–49 in terms of the probability of being missed in the Census.

8.5 Net Coverage by Tenure

Table 8.3 shows net undercount rates and omissions rates for Black Alone or in Combination and Non-Hispanic White Alone from the 2010 Census by tenure. For both the population living in owner-occupied housing units and the population living in renter-occupied housing units, Blacks Alone or in Combination have net undercounts while Non-Hispanic Whites Alone have net over counts. The difference in Census coverage between Black Alone or in Combination and Non-Hispanic Whites Alone is bigger among renters than among owners.

The omissions rates for Black Alone or in Combination renters is particularly high at 11%. For some categories of Black Alone or in Combination renters the omissions rates are extremely high. The compound impact of race, age, and tenure is reflected in omissions rates for Black males age 30–49 living in rental housing units where the omissions rate is nearly one-fifth (19.7%) and about one-sixth (16.9%) of Black male renters age 18–29 were missed in the 2010 Census (U.S. Census Bureau 2012, Table C).

Table 8.3 2010 Census net undercount rates and omissions rates for Black Alone or in combination and Non-Hispanic White Alone by tenure

		Black Alone or in combination	Non-Hispanic White Alone
Percent undercount	Population living in owner-occupied housing units	-0.9	0.8
	Population living in renter-occupied housing units	-3.0	0.9
Percent omissions	Population living in owner-occupied housing units	7.2	3.0
	Population living in renter-occupied housing units	11	6.4

Source US Census Bureau (2012). Table B

A negative sign reflects a net undercount. The signs here are reversed from the source report in order to keep directionality consistent within this publication

Figures in **BOLD** are statistically significantly different from zero

8.6 Census Coverage of the Black Population Over Time

Historically, DA estimates have only been available for two groups: Black and Non-Black. This restriction is due to the lack of race specificity and consistency for data collected on the birth and death certificates historically. The only group that has been identified relatively consistently over time is Blacks and the residual category has been Non-Black. It is important to recognize that the Black population estimates from DA have not been completely consistent over the past several decades (see Robinson 2010) but these inconsistencies are unlikely to have a major impact on trends over time.

In some ways the changes in the Census coverage rates for the Black population over the past 70 years is a “good news/bad news” story. The good news is that the net undercount rate for the Black population has decreased dramatically since 1940. The bad news is that the difference between Census coverage rates for the Black population and Non-Black population has changed very little over that time period.

Figure 8.2 shows the net undercount rate for the Black population has gone from 8.4% in 1940 to 2.5% in 2010. While this is a substantial improvement in Census coverage since 1940, the Black net undercount rate in 2010 is still the highest of any major racial/ethnic group. Moreover, despite this substantial improvement in the Census coverage of the Black population since 1940, the differential undercount between Blacks and Non-Blacks has not changed much. Figure 8.2 shows the differential undercount (Non-Black undercount rate minus the Black undercount rate) was 3.4% age points in 1940 and 3.0% age points in 2010.

However, the short-term story (1990–2010) is somewhat different than the long-term story (1940–2010). The net undercount rate of 5.5% for Blacks in the 1990 Census fell to 2.5% in the 2010 Census. The differential undercount fell from 4.4 points in 1990 to 3.0 in 2010 driven largely by improvements in the coverage of the Black population.

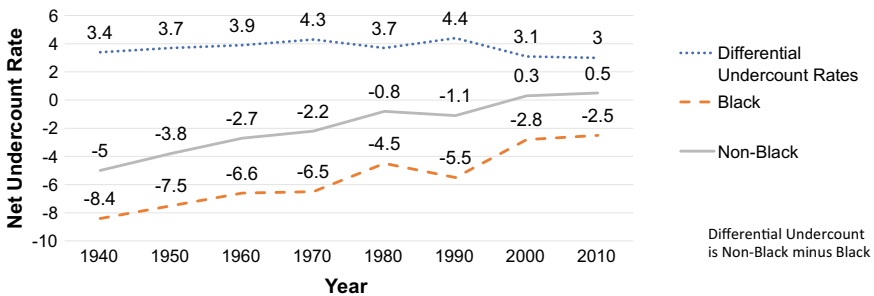


Fig. 8.2 Differential undercount rates for Blacks and Non-Blacks: 1940–2010. *Sources* Data for 1940–2000 from envisioning the 2020 Census, National Research Council, (2010) Table 2-1; Data for 2010 from Velkoff (2011) Table 2-1, p. 30

I am not aware of any commonly accepted explanation for the dramatic improvement in the Census coverage of the Black population between 1990 and 2010. It is possible the improvement is related to expanded outreach activities such as the Census Partnership Program and Paid Advertising started in the 2000 Census. It is also possible the large-scale incarceration of Black men resulted in a lower net undercount. Finally, changes between 1990 and 2010 in the way data on race have been collected may be related to the changes in net undercount of the Black population since 1990.

It should be noted that the composition of the Non-Black population has changed over time, particularly in the last few decades. Hispanics, another group with a relatively high net undercount, have become a larger part of the Non-Black population which confounds comparisons of Blacks and Non-Blacks over time.

8.7 Summary

The 2010 Census net undercount and omissions rates for the Black population were the highest of any major race or ethnic group. Black adult males have had particularly high net undercount and omissions rates. The relatively high net undercount of Blacks has been seen in every Census since 1940. Some demographic groups within the Black population were particularly vulnerable.

Other findings include:

- Young Black children (age 0–4 Black Alone or in Combination) had a net undercount rate of 6.3% in the 2010 Census and this is about 50% higher than the overall net undercount rate for young children.
- The net undercount rate for Black males age 18–49 was very high (7.6% based on 2012 DA).
- The net omissions rate for Black male renters 30–49 was extremely high at 19.7%.
- While the net undercount for the Black population has fallen dramatically since 1940, the differential undercount between Blacks and Non-Blacks has only decreased slightly.

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