

Chapter 12

Undercount Differentials by Tenure



Abstract Over the past several decades the population living in rental housing units has consistently had net undercounts while the population living in owner-occupied housing units had net overcounts. In this Chapter the coverage differentials by tenure are analyzed and the impact of this differential on different sociodemographic groups is explored.

12.1 Introduction

Home ownership is associated with a set of characteristics that often impact the likelihood of being counted in the Census. A lot of the relationships between tenure and other demographic characteristics have already been covered in earlier Chapters of this book but some are repeated here.

The number and share of the population living in rental housing units has increased since 2010. In the 2010 Census, there were 99.5 million people (33% of the total population) living in rental housing units but the 2016 American Community Survey (U.S. Census Bureau 2018a) shows 111 million people living in rental units which represents 35.3% of the population. As noted above, the population living in rental housing units had higher net undercount and higher omissions rates than the population living in owner-occupied housing units. All other things being equal, this trend is one more factor that will make the 2020 Census more difficult than the 2010 Census (see Chap. 15 for more on this topic).

12.2 Census Coverage by Tenure

Table 12.1 shows net undercount rates and omissions rates for the population living in owner-occupied housing units and the population living in renter-occupied housing units in the 2010 Census. Data in Table 12.1 show that people living in owner-occupied housing units had a net overcount (0.6%) and people living in rental units

Table 12.1 2010 census net undercount rates and omissions rates by tenure

Percent undercount	Population living in owner-occupied housing units	0.6
	Population living in renter-occupied housing units	-1.1
Percent omissions (%)	Population living in owner-occupied housing units	3.7
	Population living in renter-occupied housing units	8.5

Source U.S. Bureau of the Census, 2012, DSSD 2010 CENSUS COVERAGE MEASUREMENT MEMORANDUM SERIES 2012, 2010-E-51, 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

had a net undercount (1.1%). Both figures are statistically significantly different than zero. The omissions rate for people living in rental units is 8.5% compared to 3.7% for those living in owner-occupied units.

12.3 Differential Census Coverage by Tenure, Race, and Hispanic Origin

Table 12.2 provides data for net undercount rates by Race, Hispanic Origin, and Tenure. In general, the population living in rental units has higher net undercount rates than those living in owner-occupied units. Only one race group of owners (Black Alone or in Combination) had a net undercount. Among renters, four of the six Race/Hispanic groups had a net undercount.

For Blacks Alone or in Combination, Native Hawaiian or Pacific Islanders Alone or in Combination, and for Hispanics, renters have a net undercount of 3% or more, signaling that these groups are particularly vulnerable to being missed in the Census.

It is worth noting that for Asians Alone or in Combination the net coverage rate for both renters and owners is zero and the net overcount rates for Non-Hispanic Whites Alone owners and renters are nearly identical (0.8% for owners compared to 0.9% for renters). The average income for Asians and Non-Hispanic Whites is above average, which suggests renters who have the means to secure better rental property and may not be disadvantaged in the Census.

12.4 Differential Omissions Rates by Tenure, Race, and Hispanic Origin

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.

Table 12.2 2010 census net undercount rates by race, Hispanic Origin, and tenure

	Percent undercount	
	Population living in owner-occupied housing units	Population living in rental housing units
Total	0.6	-1.1
Non-Hispanic White Alone	0.8	0.9
Black Alone or in Combination	-0.9	-3.0
American Indian and Alaskan Natives Alone or in Combination	1.3	-1.9
Asian Alone or in Combination	0.0	0.0
Native Hawaiian or Pacific Islander Alone or in Combination	1.8	-3.7
Hispanic Origin	0.3	-3.3

Source U.S. Bureau of the Census, 2012, DSSD 2010 CENSUS COVERAGE MEASUREMENT MEMORANDUM SERIES 2012, 2010-E-51, Tables A and 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

In many ways the omissions rate is a more meaningful statistic than the net undercount rate 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, 10% were missed, and 10% double counted.

Table 12.3 shows omissions rates by Race, Hispanic Origin and Tenure. For every group examined in Table 12.3 the omissions rates for the population living in rental housing units are higher than those for the population living in owner-occupied housing units. Like net undercounts, Black Alone or in Combination, Native Hawaiian or Pacific Islander Alone or in Combination, and Hispanic renters have the highest omissions rates among the groups examined here (10% or more), indicating that these groups are particularly vulnerable to being missed in the Census.

Some of the more detailed categories of the population living in rental housing units show extremely high omissions rates. Detailed data from the 2010 Census Coverage Measurement program (U.S. Census Bureau 2012, Table D), for example, found Black Alone or in Combination males age 30–49 living in rental housing units had an omissions rate of 19.7% and Black Alone or in Combination males age 18–29 living in rental housing units had an omissions rate of 16.9%. For Hispanic Origin males age 18–29 the omissions rate was 16.1% and for American Indian and Alaskan Native Alone or in Combination males age 30–39 the omissions rate was 12.5%. Word (1997) also shows the powerful effect of tenure on self-response rates in the 1990 Census.

Table 12.3 2010 census omissions rates by race, Hispanic Origin, and tenure

	Percent omitted	
	Population living in owner-occupied housing units	Population living in rental housing units
Total	3.7	8.5
Non-Hispanic White Alone	3.0	6.4
Black Alone or in Combination	7.2	11.0
American Indian and Alaskan Natives Alone or in Combination	6.6	8.8
Asian Alone or in Combination	4.1	7.4
Native Hawaiian or Pacific Islander Alone or in Combination	5.6	10.1
Hispanic Origin	5.0	10.4

Source U.S. Bureau of the Census, 2012, DSSD 2010 CENSUS COVERAGE MEASUREMENT MEMORANDUM SERIES 2012, 2010-E-51, Tables A and B

Note The directionality of undercounts and overcounts have been reversed from the original publication in order to keep them consistent within this publication In other words, a negative sign implies an undercount

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

12.5 Net Coverage Rates Over Time by Tenure

Table 12.4 shows net undercount rates by tenure for the 1990, 2000 and 2010 Censuses. In every Census since 1990, there was a net undercount for the population living in rental housing units and a net overcount for the population living in owner-occupied housing units (there was a small net overcount for owners in 1990 but it rounds to zero). The net undercount rate for renters fell from 4.5% in 1990 to 1.1% in 2000, but it did not change between 2000 and 2010. The Census coverage gap between the population living in owner-occupied units and those living in renter-occupied units went from 4.5 percentage points in 1990 to 1.7 percentage points in 2010.

Table 12.4 Net undercount rates by tenure: 1990, 2000 and 2010

	2010	2000	1990
Population in owner-occupied housing units	0.6	1.3	0
Population in rental housing units	-1.1	-1.1	-4.5

Source U.S. Bureau of the Census, 2012, DSSD 2010 CENSUS COVERAGE MEASUREMENT MEMORANDUM SERIES 2012, 2010-G-1 Table 10

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

Table 12.5 Poverty and median household income by tenure: 2015 ACS

	Family poverty rate (percent in poverty)	Median household income
Population in owner-occupied units	7	\$73,127
Population in rental units	27	\$37,264

Source Author's analysis of U.S. Census Bureau's 2016 American Community Survey PUMS file on IPUMS system at the University of Minnesota and ACS Table B25119 Downloaded from American Factfinder

There does not seem to be any linear temporal pattern to the net coverage rates of people living in owner-occupied housing units. The net undercount for the population living in owner-occupied housing units went from zero in 1990 to a net overcount of 1.3% in 2000 but then showed a net overcount rate of 0.6% in 2010.

12.6 Tenure and Socioeconomic Status

In some ways the coverage differentials reflected by tenure are symptomatic of socioeconomic differences and tenure is sometimes used as a proxy for differences by socioeconomic status. Table 12.5 shows the family poverty rates and the median household income for renters and homeowners. The family poverty rate for the those living in renter-occupied units (27%) is almost four times that of the population living in owner-occupied units (7%) and the median household income renters (\$37,264) is about half that of owners (\$73,127). The results here underscore the connection between socio-economic status and Census coverage.

Another reason renters tend to be covered less well than owners is that many rental units are in multi-unit structures and living in a multi-unit structure is associated with being difficult to enumerate. Among people in single family housing units (including mobile homes) only 20% are in rental units compared to 78% in multifamily structure being in rental units. Also, the population living in rental housing units are more difficult to enumerate because they are more likely to move. The 2016 ACS (U.S Census Bureau 2018b) shows 25% of people in rental units moved in the previous 12 months compared to 8% in owner-occupied units.

12.7 Summary

The population living in rental housing units has a net undercount while those living in owner-occupied housing units are overcounted. In addition, the population in rental housing units have higher omissions rates than the population living in owner-occupied housing units. For every racial group examined here renters tend to be covered less well than owners.

References

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