

Investigating the 2010 Undercount of Young Children – A Comparison of Demographic, Housing, and Household Characteristics of Children by Age

A New Design for the 21st Century

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1. INTRODUCTION

The U.S. Census Bureau acknowledges the long-standing undercount of young children in decennial censuses and in Census Bureau surveys. Demographers have documented the high undercount of children under the age of 5 (e.g., West & Robinson 1999). Evaluations show that Census Bureau surveys like the American Community Survey (ACS), the Current Population Survey, and the Survey of Income and Program Participation also undercount young children, which can result in biased survey estimates (O'Hare and Jensen 2014). O'Hare (2015) found many other countries have a high net undercount of young children in their censuses.

After the 2010 Census, Demographic Analysis (DA) estimated a net undercount of about 4.6 percent for children age 0 to 4 (Hogan et al. 2013). O'Hare (2015) shows that the net undercount rates for young children increased from 1.4 percent in 1980 to 4.6 percent in 2010, while the net undercount rate for the adult population (age 18+) went from an undercount of 1.4 percent in 1980 to an overcount of 0.7 percent in 2010. The rapid rise in the undercount of young children underscores the importance of examining this coverage problem in more detail. U.S. Census Bureau (2012a) provides DA estimates and 2010 Census counts by single year of age, revealing major differences for children based on their age. When we consider three partitions of children, those age 0 to 4, 5 to 9, and 10 to 17, DA finds that only the two youngest age groups had a net undercount in 2010. The youngest children had a net undercount of 4.6 percent while children age 5 to 9 had a net undercount of 2.2 percent. Children age 10 to 17 had a net overcount of 0.5 percent.

In 2014, the Census Bureau released a task force report summarizing this issue and recommending research (U.S. Census Bureau 2014). An interdivisional team is currently working on several projects to investigate possible causes for the undercount of young children in the 2010 Decennial Census. As part of this work, we feel it is important to summarize what we know about the living arrangements and characteristics of enumerated young children. Data collection challenges vary by household and housing characteristics. The motivation for this report is to first, consolidate information describing the characteristics of young children and second, to explore if differences exist between these youngest children and older children that might contribute to coverage error. We want to understand if living arrangements or other housing, household, or demographic characteristics of the youngest children differ in important ways from those of older children.

This initial report summarizes basic demographic, housing, and household data from the 2010 Census, comparing the characteristics and living arrangements of young children (age 0 to 4) with those of older children (age 5 to 9 and 10 to 17). Unlike censuses in the past, the 2010 Census asked a limited number of questions about each person and each household. The American Community Survey (ACS) now collects the detailed demographic, social, economic, and housing data that the decennial census previously collected. Another report will analyze characteristics of children from the 2010-2014 ACS 5-year estimates. The ACS report will also compare the characteristics of younger and older children to try to identify differences that might contribute to the youngest children's coverage problems. To complement those reports, the team plans to produce a report using a recently developed typology of household structure. This typology uses 2010 Census data. Analysis of these data will expand our understanding of the types of households that include young children.

2. BACKGROUND

2.1 Coverage of Children in the 2010 Census – Demographic Analysis

Demographic Analysis (DA) refers to a specific set of techniques for developing national population estimates by age, sex, and race from administrative records. The Census Bureau uses these estimates to assess the quality of the decennial census. The DA population estimates are constructed using vital statistics (birth and death records), estimates of net international migration, and, for the population age 65 and over, data from Medicare (U.S. Census Bureau 2012a). DA is widely believed to provide the best estimates of net coverage of young children because of the accuracy and completeness of birth registration in the United States.

Figure 1 compares the revised 2010 DA estimates and the 2010 Census counts for children by single year of age. Specifically, it graphs the percent difference between the DA estimate and the census count. Children age 1 and 2 had the greatest percent differences at 5.5 percent. After age 12, we observe overcoverage (i.e., ages where the 2010 Census count exceeded the DA estimate). These results suggest that the youngest children (we chose to draw the line at those under the age of 5) have a high net undercount, while older children, especially children 12 and older, do not share this problem. These results motivate the comparisons in this report. Are there specific living arrangements or other housing, household, or demographic characteristics of the youngest children that differ in important ways from those of older children?

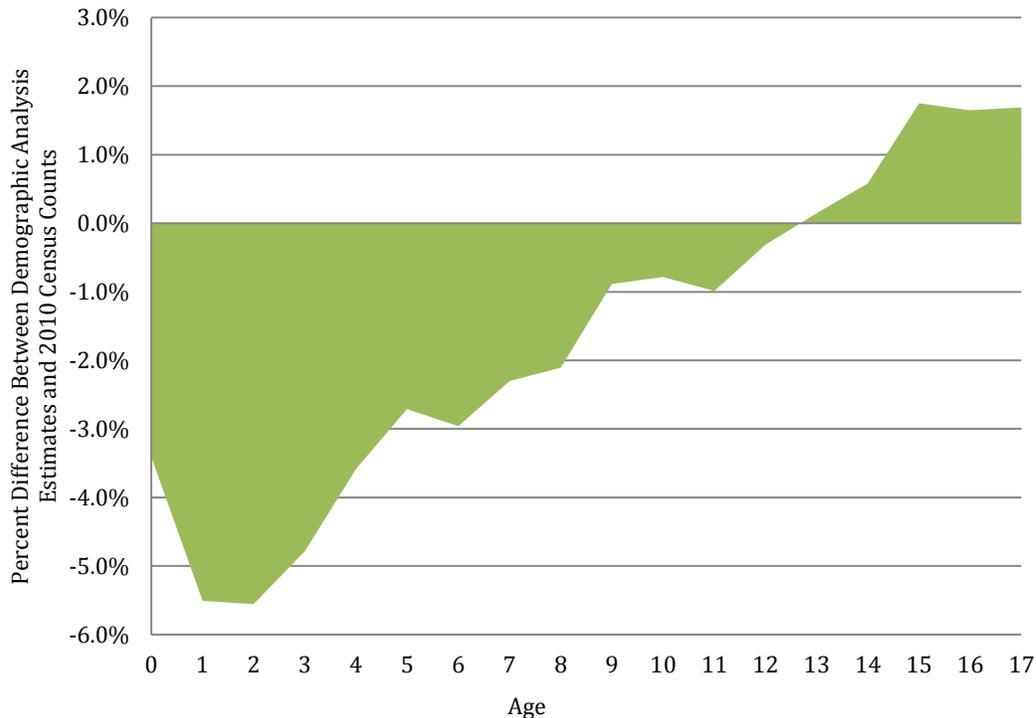


Figure 1. Comparison of 2010 Census Counts and Demographic Analysis Estimates for Children by Single Year of Age
Source: Revised 2010 Demographic Analysis Estimates (released May 2012)

2.2 Census Coverage Measurement Results – 2010 Census

Census Coverage Measurement (CCM) provides important additional information about coverage error. The 2010 CCM Program used Dual System Estimation to produce population estimates and to estimate coverage of the household population. Coverage measurement research found that certain characteristics were associated with higher levels of undercoverage. In 2010, net undercoverage and omissions varied by such characteristics as race, Hispanic origin, age, tenure, type of housing unit, and mail status (Mule 2012). While most analysis of the 2010 CCM did not focus on young children, it is reasonable to assume that the 2010 Census was more likely to miss children with certain characteristics or children living in certain types of units and households.

The CCM microdata allow for the identification of children that the 2010 Census erroneously excluded. U.S. Census Bureau (2017a) reviews the characteristics and living arrangements of young children that the 2010 CCM identified and was unable to match to a 2010 Census enumeration. These nonmatches represent young children that the 2010 Census either excluded in error or failed to enumerate completely enough for matching—children with enumeration challenges and potential coverage implications. U.S. Census Bureau (2017a) provides a profile of the types of households where children are at the highest risk of undercoverage. The report finds that some demographic characteristics have high risks of potential omissions. Children who were grandchildren, other relatives, and nonrelatives of the householder had some of the highest nonmatch rates. Children reporting races of Black, American Indian and Alaska Native (AIAN), and Native Hawaiian and Other Pacific Islander (NHPI) also had high nonmatch rates. Household characteristics known to be associated with coverage error for the adult population held for young children. This analysis found high nonmatch rates for young children living in renter-occupied housing units, young children who were movers, and young children living in nonrelated and complex households.

2.3 Coverage Followup Results – 2010 Census

U.S. Census Bureau (2017b) studied the characteristics of young children that the 2010 Census added as part of a coverage improvement program called Coverage Followup (CFU). The CFU operation recontacted households with suspected coverage errors, probing to determine if the list of household members was incomplete or if some people might be included in error. Data from the CFU identify households that initially omitted young children that followup determined were missing in error. Analyzing the characteristics of these CFU-added young children, including their living situations, identifies when respondents were most likely to erroneously exclude a young child.

U.S. Census Bureau (2017b) found evidence that householders make errors by omitting young children who were grandchildren and other relatives. Children who were not related to the householder had the highest CFU add rates. In a similar finding to the CCM results, young children living in nonrelated and complex households had high CFU add rates, suggesting that they had a greater chance of being initially omitted from census questionnaires and successfully added in CFU. Large households were especially likely to include a young child that was initially left off self-response questionnaires. The CFU operation identified and corrected coverage errors for young children across all race and Hispanic origin groups but a greater proportion of young Black

children, young AIAN children, young NHPI children, and young Hispanic children were CFU adds compared with young White children and young non-Hispanic children. These results suggest that self-response households and households enumerated in person make rostering errors involving young children that a followup interview was able to identify and correct. We can interpret these results as identifying young children with the greatest potential for coverage error.

2.4 Characteristics of Children – 2010 Census

Data from the 2010 Census allowed the Census Bureau to produce numerous tabulations and reports about children. This background section includes examples of some of those data products.

Table 1 summarizes the counts of children living in housing units by individual years of age. In this report we summarize the characteristics of young children (age 0 to 4) and make comparisons with children age 5 to 9 and 10 to 17. About 27.3 percent of all children in the 2010 Census were under the age of 5. Each individual year of age within this youngest age group’s subtotal represents between 19.5 and 20.4 percent of all children under age 5.

Table 1. Counts of Children by Individual Years of Age (Housing Unit Population Only) – 2010 Census

Age	NUMBER OF CHILDREN	PERCENT OF TOTAL CHILDREN	PERCENT OF SUBTOTALS OF CHILDREN
Total (0-17)	73,883,791	100.0	
Subtotal 0-4	20,163,046	27.3	100.0
0	3,934,955	5.3	19.5
1	3,970,081	5.4	19.7
2	4,089,290	5.5	20.3
3	4,111,864	5.6	20.4
4	4,056,856	5.5	20.1
Subtotal 5-9	20,319,713	27.5	100.0
5	4,051,060	5.5	19.9
6	4,060,700	5.5	20.0
7	4,024,984	5.4	19.8
8	4,040,544	5.5	19.9
9	4,142,425	5.6	20.4
Subtotal 10-17	33,438,122	45.2	100.0
10	4,165,831	5.6	12.5
11	4,107,157	5.6	12.3
12	4,097,486	5.5	12.3
13	4,105,719	5.6	12.3
14	4,146,870	5.6	12.4
15	4,212,444	5.7	12.6
16	4,270,049	5.8	12.8
17	4,332,566	5.9	13.0

Source: 2010 Census – Special Tabulation

Table 2 is one of the 2010 Census tables that summarize the number of children living in housing units versus group quarters facilities in 2010. It shows three age groups (0 to 4, 5 to 11, and 12 to 17) that differ slightly from the age groups we chose to use in this report. From Table 2, nearly all the children enumerated in the 2010 Census were living in housing units (99.6 percent) rather than group quarters facilities. Fewer than 39,000 children under the age of 5 lived in group quarters facilities (0.2 percent). We see similar low rates of children living in group quarters facilities for ages 5 to 11 (0.1 percent) and ages 12 to 17 (0.7 percent).

The vast majority of children in the United States live in housing units rather than group quarters. Given the low numbers of children living in group quarters, enumeration errors in these facilities are unlikely to explain the observed net undercount of young children. Our focus in this report is on the population of children living in housing units.

Table 2. Distribution of Children Living in Group Quarters by Age

	TOTAL CHILDREN		AGE 0-4		AGE 5-11		AGE 12-17	
	Number	%	Number	%	Number	%	Number	%
Total	74,144,377	100.0	20,201,362	100.0	28,635,613	100.0	25,307,402	100.0
Living in Housing Units	73,883,791	99.6	20,163,046	99.8	28,592,701	99.9	25,128,044	99.3
Living in Group Quarters	260,586	0.4	38,316	0.2	42,912	0.1	179,358	0.7
Institutional	144,340	0.2	5,676	0.0	12,848	0.0	125,816	0.5
Non-institutional	116,246	0.2	32,640	0.2	30,064	0.1	53,542	0.2

Source: 2010 Census Summary Files 1 and 2 – PCT25

In 2012, the Census Bureau released a 2010 Census Brief on households and families based on data from the 2010 Census (U.S. Census Bureau 2012b). Table 3 includes selected findings from this report about households with own children. Own children include biological, adopted, and stepchildren. While the table does not isolate households with the youngest children, it provides a preliminary look at household types and types of households by age of children.

Table 3. Household Type by Age of Children – 2010 Census

	PERCENT OF TOTAL HOUSEHOLDS
TOTAL HOUSEHOLDS	116,716,292
Non-Family Households	33.6
Family Households	66.4
Husband-wife households	48.4
With own children	20.2
Under 6 years old only	4.6
Under 6 and 6 to 17 years	4.4
6 to 17 years only	11.3
Without own Children	28.2
Female householder, no spouse present	13.1
With own children	7.2
Under 6 years old only	1.5
Under 6 and 6 to 17 years	1.3
6 to 17 years only	4.4
Without own Children	5.9
Male householder, no spouse present	5.0
Without own Children	2.4
Under 6 years old only	0.7
Under 6 and 6 to 17 years	0.4
6 to 17 years only	1.4
Without own Children	2.6

Source: U.S. Census Bureau (2012b)

In the 2010 Census, a “household” included all of the people who occupied a housing unit. One person was designated as the householder (a person who owns or rents the housing unit). The relationship question on the 2010 Census asked how each member of the household was related to

the householder. Responses to the relationship question provide information on the composition of families and households. Because relationship is tied back to the householder, many census tabulations are restricted to “own children” rather than total children. Biological, adopted, and stepchildren of the householder who are under 18 are the “own children” of the householder. Own children do not include other children present in the household, regardless of the presence or absence of the other children’s parents (e.g., a son or daughter of a roommate or boarder).

The 2010 Census included 116.7 million households. About 66 percent of these households were family households, those consisting of a householder and one or more other people living in the same household who are related to the householder by birth, marriage, or adoption. Table 3 provides additional data on the types of family households. Family households include husband-wife households, households with a female householder with no spouse present, and households with a male householder with no spouse present.

About 9 percent of all households were husband-wife households with own children under 6 years old. Just over half of these households included only own children under 6 years old, the other half included own children under the age of 6 in a household with other children 6 to 17 years old. An additional 3 percent of all households included own children under 6 years old in a household with a female householder and no spouse present, and 1 percent of all households were households with a male householder and no spouse present. From these data we see that nearly 13 percent of all households (over 15 million) included own children under the age of 6. About 53 percent of those households included only own children under the age of 6; the remaining 47 percent included both young children and older children. Almost 70 percent of all households with own children under the age of 6 were husband-wife households; 22 percent had a female householder without a spouse present; 8 percent had a male householder without a spouse present. Response to the census varies by household and it is possible that children living in certain types of households vary in their likelihood of being correctly enumerated in the census.

3. RESEARCH QUESTIONS

This report answers the following research questions.

1. What are the demographic characteristics of the young children who were included in the 2010 Census, and how do they compare with the demographic characteristics of older children?
2. What are the characteristics of the housing units that included a child age 0 to 4, and how do they compare with the characteristics of housing units that included older children?
3. Whom do young children live with? What are the characteristics of the households that included young children, and how do they compare with the characteristics of households with older children?
4. Who are the householders for young children in the 2010 Census, and how do their characteristics compare with householders for older children?
5. What are the demographic, household, and housing unit characteristics of young children on questionnaires completed by respondents (self-response) compared with questionnaires completed by census enumerators (enumerator-completed)?

4. METHODOLOGY

4.1 Sources of Data

The 2010 Census included 74,144,377 children under the age of 18 living in the 50 states and the District of Columbia (U.S. Census Bureau 2010). Most tables in this report summarize data for the 73,883,791 children living in housing units. We accessed the final Census Edited File (CEF) to tabulate these results. We used the CEF to obtain the final edited and imputed characteristics for children.

4.2 Analysis

As shown earlier in the paper, DA found that in the 2010 Census, young children had high net undercount rates while older children had net overcounts. We divided all children under the age of 18 into three age subgroups – children age 0 to 4, children age 5 to 9, and children age 10 to 17. Within each of these three groups, we tabulated selected demographic, housing, and household characteristics of the children. We also summarized the characteristics of each child’s householder. The main text of this report includes percentage distributions created from these data. Appendix 2 includes the specific census counts used to create these percentages.

4.3 Definitions

The Census Bureau uses a number of terms and concepts that may not be familiar to some readers. Appendix 1 includes a short glossary with key terms used throughout this report.

The demographic characteristics of children and of householders come from the 2010 Census questions on sex, relationship, race, and Hispanic origin. We chose to summarize the race data for six “alone” race categories and for “two or more races.” We summarized the housing characteristics of children using the 2010 Census data on type of housing unit, tenure, and type of enumeration area. See Appendix 1 for definitions of types of enumeration areas. Relationship data are the primary source for the household type summaries. Rather than using the traditional “family” and “nonfamily” definitions, we partitioned households into “related households” and “unrelated households.” Everyone living in a related household are related to the householder. A nonrelated household includes one or more individuals who are not related to the householder. We defined complex households as all households other than 1) a single-parent householder with biological or adopted children or 2) a married-couple household with biological or adopted children.

We calculated all distributions (including the housing unit, household, and householder distributions) in terms of the percent of children. This means that we based the distribution of household characteristics, for example, on the percent of children living in a certain type of household. This would differ from the percent of households with young children.

To answer the final research question on mode of data collection, we distinguished between questionnaires completed by respondents (self-response) and questionnaires completed by a census enumerator (enumerator-completed). The 2010 Census mailed or delivered census questionnaires to most addresses across the country and requested that households complete the forms and return them by mail. Households could also request that the Census Bureau send them a questionnaire in a language other than English or a “Be Counted” form if they did not receive a

questionnaire in the mail. In this analysis, “self-response” includes all mail-returned forms and other respondent-completed forms including “Be Counted” forms and forms requested and completed in languages other than English. During census processing, census staff recontacted a subset of households in a Coverage Followup operation. This operation attempted to identify and correct rostering errors. In our study, we also classified all forms completed in Coverage Followup as self-response.¹

We labeled the remaining enumerations as “enumerator-completed.” This primarily includes forms that an enumerator completed during Nonresponse Followup (NRFU) — an operation that conducted in-person interviews at addresses that failed to respond by mail. This category also includes enumerator-completed forms from Update/Enumerate, an operation in rural areas where census enumerators updated the address list and enumerated households at the same time. During the 2010 Census, enumerators validated all addresses that NRFU classified as vacant or delete in a vacant-delete followup operation. When neither NRFU or vacant/delete followup could make contact to obtain an interview, the census imputed the housing unit’s final population count. We chose to classify these two types of cases as enumerator-completed.

4.4 Limitations

This summary of the characteristics of young children only includes the children that the 2010 Census enumerated. Research on coverage error for the total population has found that the characteristics of the individuals that the 2010 Census failed to enumerate often differ from the characteristics of the individuals that the 2010 Census enumerated correctly (Mule 2012). Sometimes the differences are large and meaningful and sometimes they are small and trivial. To date, research has not focused on young children to determine if the characteristics of the young children included in the census differ from the characteristics of the young children that the census missed. We are beginning to study the characteristics of some of the children that the 2010 Census omitted in error. Those results will help us to understand if, for example, the 2010 Census missed young children within a household or if the census missed young children along with other household members. We also expect those results to inform us about the characteristics of missed children and how they compare with enumerated children.

5. RESULTS

5.1 Demographic Characteristics

What are the demographic characteristics of the young children who were included in the 2010 Census, and how do they compare with the demographic characteristics of older children?

It is important to examine the distribution of young children across race and Hispanic Origin groups because comparisons of DA estimates and 2010 Census counts indicate greater differences for

¹ The form type variable did not distinguish between self-response and enumerator-completed forms entering Coverage Followup. Since the vast majority of enumerations completed during CFU had originated from self-response forms, we chose to allocate all of these form types as self-response cases for our mode analysis.

young Black children (alone or in combination with another race) and young Hispanic children (O’Hare 2015). The Census Bureau (2017 – a & b) found evidence of greater enumeration challenges and rostering errors for young children who were Black, AIAN, NHPI, or Hispanic.

Table 4 summarizes the race, Hispanic origin, and sex distributions by age group. Readers are reminded that race and Hispanic origin are separate concepts in federal statistics and respondents are able to mark more than one race. About 63 percent of all young children reported a race of White alone, and about 14 percent reported a race of Black alone. Nearly 10 percent of children age 0 to 4 reported Some Other Race alone, and about 7 percent reported two or more races. Just over 25 percent of the youngest children were Hispanic. Note that individuals reporting as Hispanic may be of any race.

When compared with older children, the youngest children were less likely to be White alone and more likely to report two or more races. A greater proportion of the youngest children were Hispanic. We do not see any differences by sex.

Table 4. Demographic Characteristics of Children - 2010 Census

Characteristic	CHILDREN AGE 0-4 (%)	CHILDREN AGE 5-9 (%)	CHILDREN AGE 10-17 (%)
Children Living in Housing Units	20,163,046	20,319,713	33,438,122
Percent	100.0	100.0	100.0
Race	100.0	100.0	100.0
White alone	63.4	65.4	66.5
Black alone	14.3	14.1	14.9
American Indian or Alaska Native alone	1.2	1.2	1.2
Asian alone	4.4	4.6	4.2
Native Hawaiian or Pacific Islander alone	0.2	0.2	0.2
Some Other Race alone	9.5	8.8	8.2
Two or more races	6.9	5.8	4.8
Hispanic Origin	100.0	100.0	100.0
Non-Hispanic	74.7	76.5	78.5
Hispanic	25.3	23.5	21.5
Sex	100.0	100.0	100.0
Male	51.1	51.1	51.2
Female	48.9	48.9	48.8

Note: The number of children in the 2010 Census is limited to the housing unit population in the 50 states and the District of Columbia.

Source: 2010 Census – Special Tabulation

Table 5 summarizes the relationship of young children to the householder. These distributions help us understand if, and how, the person who is likely to complete the census form or respond to a followup interview is related to the children in the household. Hill et al. (2008) found that approximately 83 percent of people listed as the householder were respondents. In the 2010 Census, about 98 percent of the children living in housing units who were age 0 to 4 were related to the householder. Unrelated children, including foster children, made up close to 2 percent of all young children. Nearly 81 percent of these youngest children were biological children of the householder. Over 12 percent were grandchildren of the householder. Only about 3 percent were

other relatives (for example, nieces or nephews), and about 2 percent were adopted children or stepchildren.

Table 5 includes the relationship distributions for children of all age groups. The distributions for children age 5 to 9 and 10 to 17 are similar to those of the youngest children in many ways. The most striking difference between age groups is the proportion of grandchildren making up the youngest versus older age groups (12 percent versus 8 percent and 5 percent, respectively). It is possible that these youngest children live with their parent(s) and grandparents while they are young and later move with their parent(s) to another household.

Table 5 also shows smaller proportions of young children who are biological children, stepchildren, or adopted children of the householder. Only about 83 percent of young children fell into one of these three groups while close to 90 percent of children age 5 to 9 and 10 to 17 were biological, step, or adopted children. Proportions of adopted and stepchildren are higher for the older age groups. Children other than biological children, adopted children, and stepchildren may have a greater risk of coverage error, especially if their living arrangement is temporary. The Census Bureau (2017 – a & b) found that unrelated children, grandchildren, and other relatives were more likely to be CCM nonmatches and adds in CFU. This indicates that those relationship categories may pose enumeration challenges that result in coverage errors. The greater proportion of young children who are not biological children, stepchildren, or adopted children might contribute to their higher coverage error. These results suggest that young children are more likely to live in households with more complicated relationships.

Table 5. Relationship of Children to Householder - 2010 Census

Relationship to Person 1	CHILDREN AGE 0-4 (%)	CHILDREN AGE 5-9 (%)	CHILDREN AGE 10-17 (%)
Children Living in Housing Units	20,163,046	20,319,713	33,438,122
Percent	100.0	100.0	100.0
Related to Householder	98.3	98.5	98.2
Biological child	80.8	83.1	81.7
Adopted or step child	2.3	5.5	8.2
Grandchild	12.4	7.7	5.3
Other relative	2.8	2.2	2.8
Not related to Householder	1.7	1.6	1.8

Note: The number of children in the 2010 Census is limited to the housing unit population in the 50 states and the District of Columbia.

Source: 2010 Census – Special Tabulation

5.2 Housing Characteristics

What are the characteristics of the housing units that included a child age 0 to 4, and how do they compare with the characteristics of housing units that included older children?

Persons living in renter-occupied households and multiunit structures have higher levels of net coverage error (Mule 2012). These housing units also pose data collection challenges and tend to have lower levels of response (Bruce et al. 2012). Analysis of CCM results found higher nonmatch

rates for young children who were movers and for young children living in multiunit structures and renter-occupied housing units (U.S. Census Bureau 2017a). We are interested to see if young children are more likely to live in these “harder-to-enumerate” housing units.

Figure 2 displays housing unit distributions for children age 0 to 4 and children age 10 to 17. About 72 percent of all young children lived in single-family homes, 21 percent lived in multiunit structures, and 6 percent lived in trailers or other types of unit. About 44 percent of young children lived in renter-occupied units. When compared with older children, young children were more likely to live in multi-unit structures. About 21 percent of young children lived in multiunit structures compared with 14 percent of children age 10 to 17. A larger proportion of young children lived in renter-occupied housing units (44 percent compared with 32 percent of children age 10 to 17).

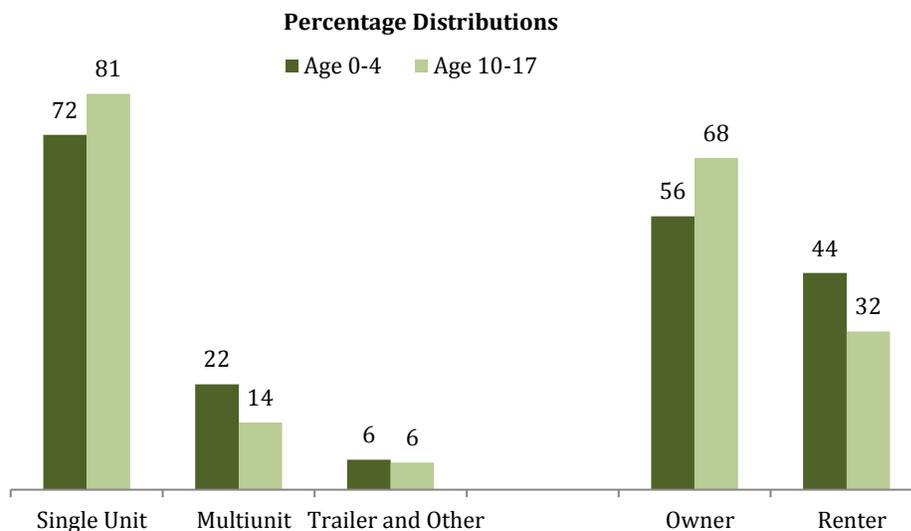


Figure 2. Housing Characteristics of Young Children - 2010 Census

Note: The number of children in the 2010 Census is limited to the housing unit population in the 50 states and the District of Columbia.

Source: 2010 Census – Special Tabulation

Table 6 summarizes these housing characteristics for all three age groups. The table also includes information about type of enumeration area. For most of the country, the United States Postal Service delivered questionnaires to residents who were asked to complete and return the questionnaire by mail. The Census Bureau called these areas Mailout/Mailback areas. About 92 percent of young children were living in Mailout/Mailback areas. In Update/Leave and Urban Update/Leave areas, census enumerators updated the address list while delivering questionnaires for respondents to complete and return by mail. About 5 percent of young children lived in Update/Leave areas and about 2 percent lived in Urban Update/Leave areas. In some rural areas,

census enumerators updated the address list and conducted in-person interviews. Less than 1 percent of all young children lived in these Update/Enumerate areas. Other types of enumeration areas primarily include military enumeration. The distributions by type of enumeration area were similar for the youngest and the oldest children.

Table 6 also allows us to see how the census enumerated children. Self-response was the mode of enumeration for about 69 percent of all young children. For most of these children, a household respondent completed a mail form and returned it by mail. Self-response also includes children included on other self-response forms such as Fulfillment requests (in which a respondent called to request materials in a different Language) and Be Counted forms. The 2010 Census enumerated a smaller proportion of young children by self-response when compared with older children. Self-response was the mode of enumeration for about 70 percent of children age 5 to 9 and 73 percent of children age 10 to 17. This means that the 2010 Census enumerated a greater proportion of young children in Nonresponse Followup or in Update/Enumerate. While enumeration errors can occur on both self-response and enumerator-completed questionnaires, coverage measurement research has found self-response households to have higher rates of correct enumerations (Mule 2012). The Census Bureau (2017a) found higher nonmatch rates for young children enumerated in NRFU and Update/Enumerate, especially young children enumerated in NRFU with a proxy respondent.

Table 6. Characteristics of Housing Units - 2010 Census

Characteristic	CHILDREN AGE 0-4 (%)	CHILDREN AGE 5-9 (%)	CHILDREN AGE 10-17 (%)
Children Living in Housing Units	20,163,046	20,319,713	33,438,122
Percent	100.0	100.0	100.0
Type of Unit	100.0	100.0	100.0
Single Unit	72.4	77.8	80.8
Multiunit	21.5	16.3	13.7
Trailer and Other	6.1	5.9	5.5
Tenure	100.0	100.0	100.0
Owner-occupied	55.8	62.4	67.7
Renter-occupied	44.2	37.6	32.3
Type of Enumeration Area	100.0	100.0	100.0
Mailout/Mailback	92.3	92.3	92.3
Update/Leave	4.7	4.9	5.1
Urban Update/Leave	1.6	1.6	1.7
Update/Enumerate	0.8	0.8	0.8
Other	0.6	0.4	0.2
Data Collection Mode	100.0	100.0	100.0
Self-response	68.7	70.2	73.2
Enumerator-Completed	31.3	29.8	26.8

Note: The number of children in the 2010 Census is limited to the housing unit population in the 50 states and the District of Columbia.

Source: 2010 Census – Special Tabulation

5.3 Household Characteristics

Whom do young children live with? What are the characteristics of the households that included young children, and how do they compare with the characteristics of households with older children?

Table 7 indicates that about 21 percent of all young children lived in a three-person household. About 23 percent of the youngest children lived in a household that included six or more people. Figure 2 compares household size distributions for children age 0 to 4 and children age 10 to 17.

Table 7. Characteristics of Households - 2010 Census

Characteristic	CHILDREN AGE	CHILDREN AGE	CHILDREN AGE
	0-4 (%)	5-9 (%)	10-17 (%)
Children Living in Housing Units	20,163,046	20,319,713	33,438,122
Percent	100.0	100.0	100.0
Household Size	100.0	100.0	100.0
2-person household	3.3	3.4	5.0
3-person household	20.7	13.5	17.8
4-person household	32.1	33.3	32.0
5-person household	20.9	25.2	22.9
6-or-more-person household	23.0	24.6	22.3
Household Type	100.0	100.0	100.0
Related households	83.2	87.0	88.5
Male householder	53.4	56.4	56.9
Female householder	29.8	30.7	31.5
Nonrelated households	16.8	13.0	11.5
Male householder	8.7	6.4	5.6
Female householder	8.2	6.5	5.9
Related Household Type	100.0	100.0	100.0
Nonrelated households	16.8	13.0	11.5
Related households	83.2	87.0	88.5
Husband-wife present	64.5	65.7	63.7
Female householder, no husband present	16.2	18.0	20.4
Male householder, no wife present	2.5	3.3	4.4
Complex Household*	100.0	100.0	100.0
Not complex	60.4	66.0	66.6
Complex	39.6	34.0	33.4

*Not complex: 1) a single-parent householder with biological or adopted children or 2) a married-couple household with biological or adopted children. Complex: All other households.

Note: The number of children in the 2010 Census is limited to the housing unit population in the 50 states and the District of Columbia.

Source: 2010 Census – Special Tabulation

Household type partitions the children in our study into two basic subgroups – those living in related households and those living in nonrelated households. A related household is a household where all people are relatives of the householder. Related households accounted for the greatest proportion of household types for young children, about 83 percent. However, young children were less likely to live in a related household than older children. The proportion of children living in nonrelated households was almost 17 percent for children under age 5 but only 13 percent for children age 5 to 9 and 11 percent for children age 10 to 17. Children living in nonrelated households may or may not be related to the householder. There is evidence that people not related to the householder are more likely to be missed in the census and in surveys (Martin 1999 and 2007). The Census Bureau (2017b) found that CFU identified and corrected errors for a greater proportion of young children living in nonrelated (versus related) households, large (versus small) households, and complex (versus not complex) households. The Census Bureau (2017a) identified enumeration challenges and coverage error associated with young children living in large households, nonrelated households, and complex households.

When we look more closely at the types of related households, we find that about 65 percent of all young children lived in husband-wife related households; this is consistent with the older age groups. About 16 percent of all young children were living in a related household with a female householder and no husband present. This is lower than the rates for older children (18 and 20 percent for 5 to 9 and 10 to 17 age groups, respectively).

We defined complex households as all households other than householder parents with no spouse present or married-couple households with biological or adopted children. Almost 40 percent of all young children lived in complex households. This is higher than the proportions for older children (34 and 33 percent).

Figure 3 shows similar proportions of young children (when compared with children age 10 to 17) living in the largest households. These households could include multigenerational families, extended families, and/or nonrelatives². The planned report on young children living in complex households will be able to provide this additional detail. It is important that 2020 Census data collection methods permit efficient and accurate enumeration of these largest households.

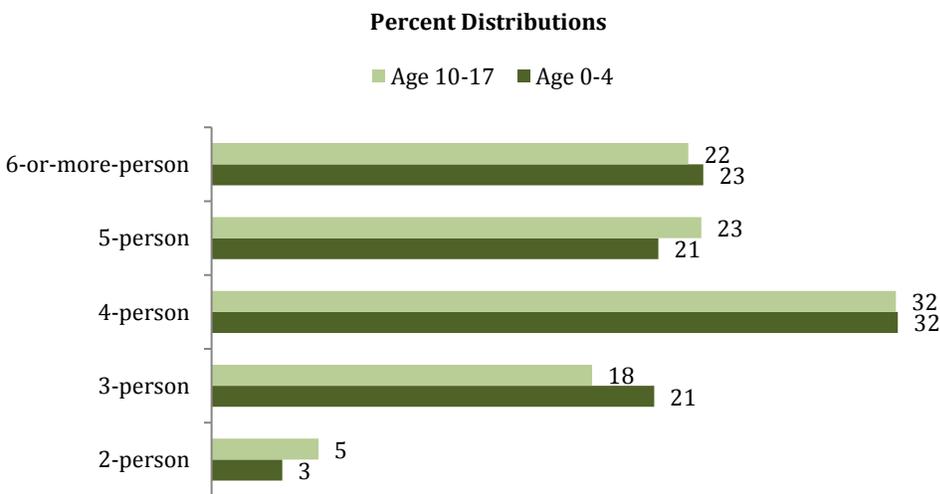


Figure 3. Comparison of Household Sizes for Two Age Groups of Children - 2010 Census

Note: The number of children in the 2010 Census is limited to the housing unit population in the 50 states and the District of Columbia.

Source: 2010 Census – Special Tabulation

5.4 Householder Characteristics

Who are the householders for young children in the 2010 Census, and how do their characteristics compare with householders for older children?

² Note that nonrelatives of the householder could be related to the young child, including being the young child's parent.

Table 8 summarizes the characteristics of children’s householders. The householder is someone who owns or rents the home and is usually the person listed first on the census questionnaire. Most children live with male householders (62 percent). This holds across the three age groups. We expected to see differences in the ages of the householders across age groups of children, with the youngest children more likely to have younger householders (parents). About 29 percent of the young children had a householder age 18 to 29. This is much higher than the proportion for older children (14 percent for children age 5 to 9 and 3 percent for children age 10 to 17). About 10 percent of young children lived in a household where the householder was age 50 or older. These may be instances where the young child is a grandchild of the householder. The proportions of older children with older householders are higher (12 percent for children age 5 to 9 and 23 percent for children age 10 to 17). For these oldest children, the older householder may be the parent rather than a grandparent.

There is some speculation that young householders are less likely to respond to the census because they are less likely to engage in most civic activities. Also, young householders may be more likely to live in the kinds of complex families and households which are more difficult to enumerate accurately. Analysis of CFU and CCM results identify young children living in households with the youngest and the oldest householders as being more at risk of coverage error (U.S. Census Bureau 2017 – a & b).

Table 8. Characteristics of Householders - 2010 Census

Characteristic	CHILDREN AGE	CHILDREN AGE	CHILDREN AGE
	0-4 (%)	5-9 (%)	10-17 (%)
Children Living in Housing Units	20,163,046	20,319,713	33,438,122
Percent	100.0	100.0	100.0
Sex of householder	100.0	100.0	100.0
Male	62.0	62.8	62.6
Female	38.0	37.2	37.4
Age of householder	100.0	100.0	100.0
18-29	29.0	13.8	3.0
30-49	60.8	74.6	74.2
50+	10.2	11.6	22.8
Race of householder	100.0	100.0	100.0
White alone	66.4	68.1	68.8
Black alone	14.6	14.3	14.9
American Indian or Alaska Native alone	1.2	1.2	1.1
Asian alone	4.8	4.7	4.3
Native Hawaiian or Pacific Islander alone	0.3	0.2	0.2
Some Other Race alone	9.8	9.0	8.3
Two or more races	2.9	2.6	2.4
Hispanic Origin of Householder	100.0	100.0	100.0
Non-Hispanic	77.0	78.4	80.2
Hispanic	23.0	21.6	19.8

Note: The number of children in the 2010 Census is limited to the housing unit population in the 50 states and the District of Columbia.

Source: 2010 Census – Special Tabulation

The race and Hispanic origin distributions of the householders for young children are similar to the race and Hispanic origin distributions of the young children themselves shown in Table 4, with a few exceptions. Young children were more likely to have a householder with a single race leading to higher proportions in most “alone” categories and a lower rate of two or more races (3 percent

of young children had a householder reporting two or more races while 7 percent of all young children reported two or more races). This might indicate multiracial households. Young children were more likely to be reported as Hispanic than their householders (25 percent versus 23 percent). We also observe these differences between the race and Hispanic origin distributions of older children's householders and older children themselves.

5.5 Selected Characteristics by Data Collection Mode

What are the demographic, household, and housing unit characteristics of young children on questionnaires completed by respondents (self-response) compared with questionnaires completed by census enumerators (enumerator-completed)?

Tables 9 and 10 summarize the method of enumeration for young children by demographic and housing characteristics. The 2010 Census enumerated over 13.7 million children under the age of 5 by self-response on mail-returned forms and forms requested such as "Be Counted" forms and other-language questionnaires (68 percent of all young children). Census enumerators collected data for an additional 6.4 million young children during Nonresponse Followup and Update/Enumerate (32 percent of all young children). In the 2010 Census, when a household self-responded, the results were more accurate (Groves 2012). Individuals enumerated during a followup effort, especially those requiring a proxy response, were more likely to include errors.

We see that while the 2010 Census enumerated about 68 percent of all children by self-response, self-response accounted for almost 75 percent of all adopted children and 74 percent of all grandchildren. Self-response only accounted for 55 percent of young children who were stepchildren and 60 percent of young children who were other relatives of the householder. We see little variation across modes by individual years of age or sex. Self-response accounted for a greater proportion of young children reporting a race of White alone (73 percent) and Asian alone (72 percent) when compared with races of Black alone (60 percent), American Indian or Alaska Native alone (50 percent), and Native Hawaiian or Pacific Islander alone (50 percent). Self-response accounted for a greater proportion of young non-Hispanic children (70 percent) compared with young Hispanic children (62 percent).

Table 9. Demographic Characteristics of Young Children by Data Collection Mode – 2010 Census

Characteristic	Total Young Children Living in Housing Units	Percent Enumerated by Self-Response
Relationship to Householder	20,163,046	68.1
Biological child	16,286,619	67.6
Adopted child	268,969	74.9
Stepchild	192,954	55.2
Grandchild	2,507,421	74.0
Other relative	564,191	59.8
Unrelated child	342,892	64.6
Age	20,163,046	68.1
0	3,934,955	68.2
1	3,970,081	68.0
2	4,089,290	67.9
3	4,111,864	68.2
4	4,056,856	68.4
Race	20,163,046	68.1
White alone	12,778,548	73.2
Black alone	2,888,770	59.5
American Indian or Alaska Native alone	243,679	49.6
Asian alone	897,248	71.6
Native Hawaiian or Pacific Islander alone	44,513	49.7
Some Other Race alone	1,915,134	51.7
Two or more races	1,395,154	64.0
Hispanic Origin	20,163,046	68.1
Non-Hispanic	15,059,263	70.1
Hispanic	5,103,783	62.2
Sex	20,163,046	68.1
Male	10,299,423	68.2
Female	9,863,623	68.1

Note: The number of children in the 2010 Census is limited to the housing unit population in the 50 states and the District of Columbia.

Source: 2010 Census – Special Tabulation

The 2010 Census enumerated a smaller proportion of young children living in multiunit structures and trailers or other types of units by self-response (57 percent each) compared with young children living in single family homes (72 percent). The 2010 Census was more likely to enumerate young children living in owner-occupied units by self-response than those living in renter-occupied units (77 percent versus 57 percent, respectively).

Table 10. Housing Characteristics of Young Children by Data Collection Mode – 2010 Census

Characteristic	Total Young Children Living in Housing Units	Percent Enumerated by Self-Response
Type of Unit	20,163,046	68.1
Single Unit	14,599,354	72.3
Multiunit	4,326,759	57.3
Trailer and Other	1,236,933	56.5
Tenure	20,163,046	68.1
Owner-occupied	11,260,877	76.9
Renter-occupied	8,902,169	57.1

Note: The number of children in the 2010 Census is limited to the housing unit population in the 50 states and the District of Columbia.

Source: 2010 Census – Special Tabulation

Tables 11 and 12 extend this analysis to young children’s household and householder characteristics.

Table 11. Household Characteristics by Mode – 2010 Census

Characteristic	Total Young Children Living in Housing Units	Percent Enumerated by Self-Response
Household Size	20,163,046	68.1
2-person household	670,958	51.9
3-person household	4,170,773	67.6
4-person household	6,462,918	70.7
5-person household	4,214,031	67.8
6-person household	2,195,683	68.4
7-or-more-person household	2,448,683	67.0
Household Type	20,163,046	68.1
Related households	16,766,695	69.4
Male householder	10,756,887	75.2
Female householder	6,009,808	58.8
Nonrelated households	3,396,351	62.1
Male householder	1,750,024	62.1
Female householder	1,646,327	62.1
Related Household Type	20,163,046	68.1
Nonrelated households	3,396,351	62.1
Related households	16,766,695	69.4
Husband-wife present	13,001,602	73.8
Female householder, no husband present	3,268,396	55.0
Male householder, no wife present	496,697	48.4
Complex Household*	20,163,046	68.1
Not complex	12,170,636	69.5
Complex	7,992,410	66.0

*Not complex: Householder parents with no spouse present or married couple households with biological or adopted children; Complex: All other households

Note: The number of children in the 2010 Census is limited to the housing unit population in the 50 states and the District of Columbia.

Source: 2010 Census – Special Tabulation

When we look at household size, we see that the 2010 Census was less likely to enumerate young children living in two-person households by self-response than young children living in all other size households (52 percent versus range of 67 percent to 71 percent). Self-response accounted for a high proportion of young children living in related households, especially husband-wife related households (74 percent). Young children living in “other related” households had the lowest percent self-response. The 2010 Census was less likely to enumerate young children living in related households with a female householder and no spouse present by self-response than young children living in any other type of related or nonrelated household. Young children living in complex households were also less likely to be enumerated on self-response questionnaires when compared with young children living in households that we defined as not complex (66 percent versus 70 percent, respectively).

The characteristics of young children’s householders identify important differences across data collection modes. Young children with female householders and young householders were less likely to be enumerated by self-response than young children with male householders and older householders. The householder race groups with the lowest proportion of young children

enumerated by self-response include American Indian or Alaska Native alone (48 percent) and Native Hawaiian or Pacific Islander alone (49 percent). The proportion of young children enumerated by self-response was greater for young children living in a household with a non-Hispanic householder (70 percent) as compared to a Hispanic householder (62 percent).

Table 12. Householder Characteristics by Mode – 2010 Census

Characteristic	Total Young Children Living in Housing Units	Percent Enumerated by Self-Response
Sex of householder	20,163,046	68.1
Male	12,506,911	73.4
Female	7,656,135	59.5
Age of householder	20,163,046	68.1
18-29	5,841,587	56.1
30-49	12,264,578	72.3
50+	2,056,881	77.5
Race of householder	20,163,046	68.1
White alone	13,389,626	72.9
Black alone	2,939,183	59.2
American Indian or Alaska Native alone	249,973	47.8
Asian alone	967,507	71.5
Native Hawaiian or Pacific Islander alone	50,916	49.0
Some Other Race alone	1,984,377	51.2
Two or more races	581,464	66.6
Hispanic Origin of Householder	20,163,046	68.1
Non-Hispanic	15,527,084	70.1
Hispanic	4,635,962	61.7

Note: The number of children in the 2010 Census is limited to the housing unit population in the 50 states and the District of Columbia.

Source: 2010 Census – Special Tabulation

6. DISCUSSION

Differences between the 2010 Demographic Analysis estimates and 2010 Census counts reveal a strong relationship between age and coverage. We estimate that errors in the 2010 Census resulted in a net undercount of about 1 million children under the age of 5. Children age 5 to 9 also shared noteworthy undercoverage problems in 2010 while the 2010 Census generally had small net undercounts or overcounts for children age 10 to 17. This report looked at the characteristics of children by age to try to identify key differences that might explain these coverage disparities.

The 2010 Census included over 20 million children under the age of 5. When we study the characteristics of the children that the census successfully enumerated, we observe living situations and potential barriers of enumeration that face the youngest children. For example, of all young children

- 23 percent lived in households with six or more people.
- 44 percent lived in renter-occupied housing units.
- 40 percent lived in households that were complex, that is, households other than those with householder parents with no spouse present or married couples with biological or adopted children.

- 29 percent had a householder under the age of 29.
- 12 percent were grandchildren of the householder.
- 31 percent were not self-response households.

Figure 4 compares the proportion of the oldest children (age 10 to 17) and youngest children (age 0 to 4) with selected characteristics. Recent research about the young children added in the 2010 Coverage Followup operation identified all of these characteristics as having high CFU add rates. This indicates that household respondents were more likely to omit children with these characteristics from their census questionnaires that were later corrected in CFU (U.S. Census Bureau 2017b). Similar research using CCM results found that children with these characteristics were more likely to be CCM nonmatches, signaling enumeration challenges and the potential for coverage error. With the exception of large households, we observe higher proportions of young children facing these potential enumeration barriers.

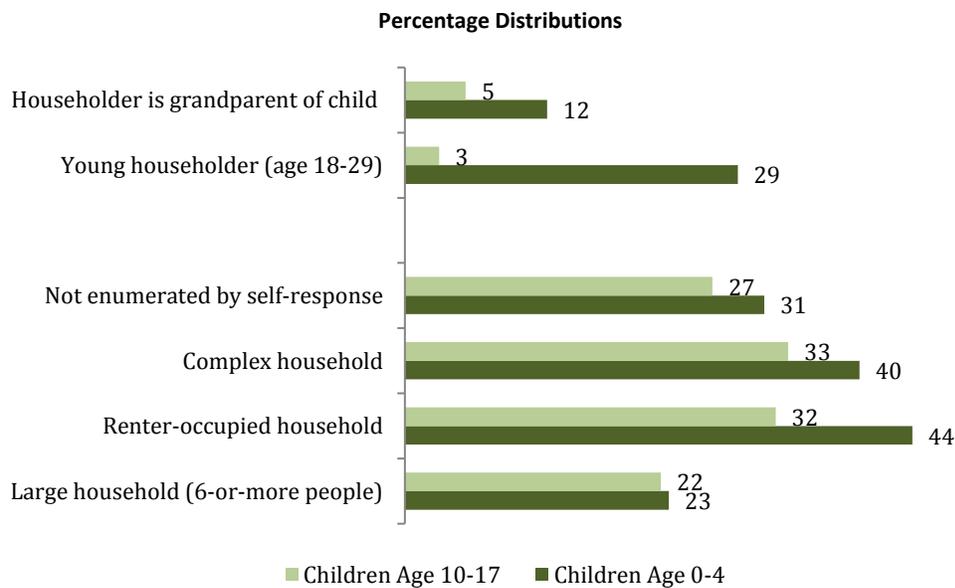


Figure 4. Comparison of Selected Characteristics of Younger and Older Children – 2010 Census

Source: 2010 Census – Special Tabulation

7. CONCLUSIONS

While these results do not explain why the 2010 Census missed young children at such a high rate, they find that young children are more likely than older children to live in many types of households with greater risks of undercoverage. It is reasonable to deduce that some of the

coverage errors for young children result from ambiguity about membership in a household. The residence rules and rostering instructions on the 2010 Census questionnaires may have been inadequate or poorly understood. While a greater proportion of young (versus older) children lived in households that required followup or in-person interviewing in 2010, the Census enumerated nearly 70 percent of young children on self-response questionnaires. This highlights why we need to be very clear on all self-response instruments about the need to include all young children who may be living or staying, even temporarily, at the census address.

About 40 percent of all young children included in the 2010 Census lived in a complex household. It is very possible that the true number is higher, that the 2010 Census excluded in error some of the young children who were living in complex households. The 2020 Census needs to consider special efforts to help respondents correctly identify all household members when the living arrangements include multiple families or multiple generations. Similarly, households with young householders and householders who were grandparents were much more likely to include young versus older children. In the 2010 Census, some of these householders might have neglected to include young children on their questionnaires, and in the 2020 Census, many grandparents may be confused about if they should be including their grandchildren as household members.

The Census Bureau (2012b) found that about 13 percent of all households (15 million households) included own children under the age of 6. This suggests that education about the importance of including young children in the 2020 Census impacts a large proportion of all households. Given the high net undercount of young children in the 2010 Census, special outreach and promotion efforts in 2020 should target this population.

We need to consider the implications of the high proportions of young children living in renter-occupied and large households and assess if coverage improvement or outreach efforts in those areas might provide opportunities to reduce coverage error. NRFU provides an opportunity for enumerators to probe for young children that the respondent may not perceive as a household member. Specialized training to alert enumerators to look for potential coverage errors involving grandchildren and young householder's children might be of value.

8. NEXT STEPS

There are two additional reports underway that will further illuminate the characteristics and living arrangements of young children. A report using data from the American Community Survey (ACS) will supplement the results of this report with information on social and economic characteristics such as poverty, employment characteristics of householders, mobility, and other household characteristics. A third report summarizing the new complex household typology will allow us to get a much closer look into the compositions of those households that included young children.

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Glossary of Terms

Adoptive household – A household with an adoptive parent, adopted child, or adopted sibling present.

Blended households – A household with stepchildren, stepparents, half-siblings, or step-siblings present.

Be Counted Form – The 2010 Census provided “Be Counted Forms” for upon request to individuals who had not received a questionnaire and thought they were not counted in the census. These forms collected critical information to enumerate these people.

Complex households – Households other than householder parents with no spouse present or married couple households with biological or adopted children.

Coverage Followup – A coverage improvement operation in the 2010 Census that recontacted households to review and correct possible coverage errors.

Enumerator-completed – Households enumerated in the 2010 Census by an enumerator (in Nonresponse Followup, Update/Enumerate, Vacant/Delete Followup) and count imputation households.

Extended household – Households that contain a child who has a relative present who is not his or her parent or sibling, or who has a nonrelative present.

Family household – A household consisting of a householder and one or more other people living in the same household who are related to the householder by birth, marriage, or adoption.

Fulfillment – In the 2010 Census a respondent could call to request census materials in different languages. The operation that “fulfilled” those requests was called, “Fulfillment”.

Grandparent-grandchild household – A household with a child and a grandparent present.

Household – All of the people who occupy a housing unit.

Householder – A person who owns or rents the housing unit.

Mailout/Mailback areas – Areas that received a questionnaire from the U.S. Postal Service with instructions to complete and return the form by mail.

Multigenerational households – Family households consisting of three or more generations. These households include households with a householder, a parent or parent-in-law of the householder, and a child of the householder; or a householder, a child of the householder, and a grandchild of the householder; or a householder, a parent or parent-in-law of the householder, a child of the householder, and a grandchild of the householder.

Nonfamily household – A householder living alone or with nonrelatives only.

Nonrelated household – A household that includes at least one person who is not related to the householder.

Nonresponse Followup – The operation that followed up on all households that failed to respond by mail to the 2010 Census.

Own children – Biological, adopted, and stepchildren of the householder.

Related household – A household where all members are related to the householder.

Self-response – Households responding to the 2010 Census by mail or during Coverage Followup.

Update/Enumerate areas – Rural areas where census enumerators updated the address list and enumerated households.

Update/Leave areas – Primarily rural areas where census enumerators updated the address list and dropped off questionnaires for respondents to complete and return by mail.

Urban Update/Leave areas – Urban areas where census enumerators updated the address list and dropped off questionnaires for respondents to complete and return by mail.

Appendix 2

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Table 13. Summary of 2010 Census Data on Relationship of Children to Householder

Relationship to Person 1	CHILDREN AGE 0-4		CHILDREN AGE 5-9		CHILDREN AGE 10-17	
	Number	(%)	Number	(%)	Number	(%)
Children Living in Housing Units	20,163,046	100.0	20,319,713	100.0	33,438,122	100.0
Related to Householder	19,820,154	98.3	19,987,240	98.5	32,750,549	98.2
Biological child	16,286,619	80.8	16,876,099	83.1	27,303,878	81.7
Adopted or stepchild	461,923	2.3	1,108,150	5.5	2,741,478	8.2
Grandchild	2,507,421	12.4	1,554,062	7.7	1,763,746	5.3
Other relative	564,191	2.8	448,929	2.2	941,447	2.8
Not related to Householder	342,892	1.7	332,473	1.6	596,317	1.8

Note: The number of children in the 2010 Census is limited to the housing unit population in the 50 states and the District of Columbia.

Source: 2010 Census – Special Tabulation

Table 14. Summary of 2010 Census Data on Demographic Characteristics of Children

Characteristic	CHILDREN AGE 0-4		CHILDREN AGE 5-9		CHILDREN AGE 10-17	
	Number	(%)	Number	(%)	Number	(%)
Race	20,163,046	100.0	20,319,713	100.0	33,438,122	100.0
White alone	12,778,548	63.4	13,279,425	65.4	22,227,535	66.5
Black alone	2,888,770	14.3	2,873,243	14.1	4,992,909	14.9
American Indian or Alaska Native alone	243,679	1.2	242,411	1.2	396,109	1.2
Asian alone	897,248	4.4	927,601	4.6	1,418,626	4.2
Native Hawaiian or Pacific Islander alone	44,513	0.2	42,980	0.2	68,485	0.2
Some Other Race alone	1,915,134	9.5	1,782,162	8.8	2,744,250	8.2
Two or more races	1,395,154	6.9	1,171,891	5.8	1,590,208	4.8
Hispanic Origin	20,163,046	100.0	20,319,713	100.0	33,438,122	100.0
Non-Hispanic	15,059,263	74.7	15,536,423	76.5	26,247,448	78.5
Hispanic	5,103,783	25.3	4,783,290	23.5	7,190,674	21.5
Sex	20,163,046	100.0	20,319,713	100.0	33,438,122	100.0
Male	10,299,423	51.1	10,374,101	51.1	17,106,135	51.2
Female	9,863,623	48.9	9,945,612	48.9	16,331,987	48.8

Note: The number of children in the 2010 Census is limited to the housing unit population in the 50 states and the District of Columbia.

Source: 2010 Census – Special Tabulation

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Table 15. Summary of 2010 Census Data on Characteristics of Housing Units

Characteristic	CHILDREN AGE 0-4		CHILDREN AGE 5-9		CHILDREN AGE 10-17	
	Number	(%)	Number	(%)	Number	(%)
Type of Unit	20,163,046	100.0	20,319,713	100.0	33,438,122	100.0
Single Unit	14,599,354	72.4	15,809,600	77.8	27,014,416	80.8
Multunit	4,326,759	21.5	3,317,522	16.3	4,576,424	13.7
Trailer and Other	1,236,933	6.1	1,192,591	5.9	1,847,282	5.5
Tenure	20,163,046	100.0	20,319,713	100.0	33,438,122	100.0
Owner-occupied	11,260,877	55.8	12,676,738	62.4	22,642,084	67.7
Renter-occupied	8,902,169	44.2	7,642,975	37.6	10,796,038	32.3
Type of Enumeration Area	20,163,046	100.0	20,319,713	100.0	33,438,122	100.0
Mailout/Mailback	18,618,737	92.3	18,764,012	92.3	30,860,503	92.3
Update/Leave	953,354	4.7	991,291	4.9	1,687,042	5.1
Urban Update/Leave	320,337	1.6	327,038	1.6	555,877	1.7
Update/Enumerate	156,303	0.8	155,496	0.8	257,233	0.8
Other	114,315	0.6	81,876	0.4	77,467	0.2

Note: The number of children in the 2010 Census is limited to the housing unit population in the 50 states and the District of Columbia.

Source: 2010 Census – Special Tabulation

Table 16. Summary of 2010 Census Data on Characteristics of Households

Characteristic	CHILDREN AGE 0-4		CHILDREN AGE 5-9		CHILDREN AGE 10-17	
	Number	(%)	Number	(%)	Number	(%)
Household Size	20,163,046	100.0	20,319,713	100.0	33,438,122	100.0
1-person household	0	0.0	0	0.0	5,574	0.0*
2-person household	670,958	3.3	681,077	3.4	1,676,077	5.0
3-person household	4,170,773	20.7	2,751,473	13.5	5,954,559	17.8
4-person household	6,462,918	32.1	6,767,451	33.3	10,682,710	32.0
5-person household	4,214,031	20.9	5,123,189	25.2	7,663,943	22.9
6-person household	2,195,683	10.9	2,577,714	12.7	3,864,722	11.6
7-or-more-person household	2,448,683	12.1	2,418,809	11.9	3,590,537	10.7
Related Household Type	20,163,046	100.0	20,319,713	100.0	33,438,122	100.0
Nonrelated households	3,396,351	16.8	2,633,192	13.0	3,856,467	11.5
Related households	16,766,695	83.2	17,686,521	87.0	29,581,655	88.5
Husband-wife	13,001,602	64.5	13,357,663	65.7	21,297,158	63.7
Female householder, no husband present	3,268,396	16.2	3,659,168	18.0	6,813,508	20.4
Other	496,697	2.5	669,690	3.3	1,470,989	4.4
Household Type	20,163,046	100.0	20,319,713	100.0	33,438,122	100.0
Related households	16,766,695	83.2	17,686,521	87.0	29,581,655	88.5
Male householder	10,756,887	53.4	11,449,739	56.4	19,034,604	56.9
Female householder	6,009,808	29.8	6,236,782	30.7	10,547,051	31.5
Nonrelated households	3,396,351	16.8	2,633,192	13.0	3,856,467	11.5
Male householder	1,750,024	8.7	1,303,285	6.4	1,880,644	5.6
Female householder	1,646,327	8.2	1,329,907	6.5	1,975,823	5.9
Complex Household*	20,163,046	100.0	20,319,713	100.0	33,438,122	100.0
Not complex	12,170,636	60.4	13,410,081	66.0	22,266,696	66.6
Complex	7,992,410	39.6	6,909,632	34.0	11,171,426	33.4

0.0* indicates value is less than 0.05

Not complex: Householder parents with no spouse present or married couple households with biological or adopted children

Complex: All other households

Note: The number of children in the 2010 Census is limited to the housing unit population in the 50 states and the District of Columbia.

Source: 2010 Census – Special Tabulation

Table 17. Summary of 2010 Census Data on Characteristics of Householders

Characteristic	CHILDREN AGE 0-4		CHILDREN AGE 5-9		CHILDREN AGE 10-17	
	Number	(%)	Number	(%)	Number	(%)
Sex of householder	20,163,046	100.0	20,319,713	100.0	33,438,122	100.0
Male	12,506,911	62.0	12,753,024	62.8	20,915,248	62.6
Female	7,656,135	38.0	7,566,689	37.2	12,522,874	37.4
Age of householder	20,163,046	100.0	20,319,713	100.0	33,438,122	100.0
18-29	5,841,587	29.0	2,810,011	13.8	1,010,153	3.0
30-49	12,264,578	60.8	15,157,228	74.6	24,809,862	74.2
50+	2,056,881	10.2	2,352,474	11.6	7,618,107	22.8
Race of householder	20,163,046	100.0	20,319,713	100.0	33,438,122	100.0
White alone	13,389,626	66.4	13,829,667	68.1	22,989,657	68.8
Black alone	2,939,183	14.6	2,897,449	14.3	4,996,435	14.9
AIAN alone	249,973	1.2	238,807	1.2	379,754	1.1
Asian alone	967,507	4.8	949,805	4.7	1,430,446	4.3
NHPI alone	50,916	0.3	47,352	0.2	73,270	0.2
Some Other Race alone	1,984,377	9.8	1,824,623	9.0	2,770,016	8.3
Two or more races	581,464	2.9	532,010	2.6	798,544	2.4
Hispanic Origin of Householder	20,163,046	100.0	20,319,713	100.0	33,438,122	100.0
Non-Hispanic	15,527,084	77.0	15,936,286	78.4	26,819,611	80.2
Hispanic	4,635,962	23.0	4,383,427	21.6	6,618,511	19.8

AIAN: American Indian or Alaska Native, NHPI: Native Hawaiian or Pacific Islander

Note: The number of children in the 2010 Census is limited to the housing unit population in the 50 states and the District of Columbia.

Source: 2010 Census – Special Tabulation

Table 18. Summary of 2010 Census Data on Demographic and Housing Characteristics by Mode

CHILDREN AGE 0-4							
Characteristic	SELF-RESPONSE		ENUM-COMPLETED		TOTAL Number	SELF- RESPONSE %	ENUM- COMPLETED %
	Number	%	Number	%			
Relationship to Householder	13,739,016	100.0	6,424,030	100.0	20,163,046	68.1	31.9
Biological child	11,015,827	80.2	5,270,792	82.0	16,286,619	67.6	32.4
Adopted child	201,531	1.5	67,438	1.0	268,969	74.9	25.1
Stepchild	106,530	0.8	86,424	1.3	192,954	55.2	44.8
Grandchild	1,856,118	13.5	651,303	10.1	2,507,421	74.0	26.0
Other relative	337,485	2.5	226,706	3.5	564,191	59.8	40.2
Unrelated child	221,525	1.6	121,367	1.9	342,892	64.6	35.4
Age	13,739,016	100.0	6,424,030	100.0	20,163,046	68.1	31.9
0	2,682,496	19.5	1,252,459	19.5	3,934,955	68.2	31.8
1	2,701,065	19.7	1,269,016	19.8	3,970,081	68.0	32.0
2	2,776,162	20.2	1,313,128	20.4	4,089,290	67.9	32.1
3	2,802,419	20.4	1,309,445	20.4	4,111,864	68.2	31.8
4	2,776,874	20.2	1,279,982	19.9	4,056,856	68.4	31.6
Race	13,739,016	100.0	6,424,030	100.0	20,163,046	68.1	31.9
White alone	9,349,419	68.1	3,429,129	53.4	12,778,548	73.2	26.8
Black alone	1,720,211	12.5	1,168,559	18.2	2,888,770	59.5	40.5
AIAN alone	120,856	0.9	122,823	1.9	243,679	49.6	50.4
Asian alone	642,387	4.7	254,861	4.0	897,248	71.6	28.4
NHPI alone	22,103	0.2	22,410	0.3	44,513	49.7	50.3
Some Other Race alone	990,942	7.2	924,192	14.4	1,915,134	51.7	48.3
Two or more races	893,098	6.5	502,056	7.8	1,395,154	64.0	36.0
Hispanic Origin	13,739,016	100.0	6,424,030	100.0	20,163,046	68.1	31.9
Non-Hispanic	10,562,320	76.9	4,496,943	70.0	15,059,263	70.1	29.9
Hispanic	3,176,696	23.1	1,927,087	30.0	5,103,783	62.2	37.8
Sex	13,739,016	100.0	6,424,030	100.0	20,163,046	68.1	31.9
Male	7,025,838	51.1	3,273,585	51.0	10,299,423	68.2	31.8
Female	6,713,178	48.9	3,150,445	49.0	9,863,623	68.1	31.9
Type of Unit	13,739,016	100.0	6,424,030	100.0	20,163,046	68.1	31.9
Single Unit	10,558,963	76.9	4,040,391	62.9	14,599,354	72.3	27.7
Multiunit	2,481,190	18.1	1,845,569	28.7	4,326,759	57.3	42.7
Trailer and Other	698,863	5.1	538,070	8.4	1,236,933	56.5	43.5
Tenure	13,739,016	100.0	6,424,030	100.0	20,163,046	68.1	31.9
Owner-occupied	8,654,572	63.0	2,606,305	40.6	11,260,877	76.9	23.1
Renter-occupied	5,084,444	37.0	3,817,725	59.4	8,902,169	57.1	42.9

AIAN: American Indian or Alaska Native; NHPI: Native Hawaiian or Pacific Islander

Note: The number of children in the 2010 Census is limited to the housing unit population in the 50 states and the District of Columbia.

Source: 2010 Census – Special Tabulation

Table 19. Summary of 2010 Census Data on Household and Householder Characteristics by Mode

CHILDREN AGE 0-4							
Characteristic	SELF-RESPONSE		ENUM-COMPLETED		TOTAL Number	SELF- RESPONSE %	ENUM- COMPLETED %
	Number	%	Number	%			
Household Size	13,739,016	100.0	6,424,030	100.0	20,163,046	68.1	31.9
2-person household	348,429	2.5	322,529	5.0	670,958	51.9	48.1
3-person household	2,819,501	20.5	1,351,272	21.0	4,170,773	67.6	32.4
4-person household	4,569,846	33.3	1,893,072	29.5	6,462,918	70.7	29.3
5-person household	2,857,258	20.8	1,356,773	21.1	4,214,031	67.8	32.2
6-person household	1,502,214	10.9	693,469	10.8	2,195,683	68.4	31.6
7-or-more-person household	1,641,768	11.9	806,915	12.6	2,448,683	67.0	33.0
Related Household Type	13,739,016	100.0	6,424,030	100.0	20,163,046	68.1	31.9
Nonrelated households	2,109,639	15.4	1,286,712	20.0	3,396,351	62.1	37.9
Related households	11,629,377	84.6	5,137,318	80.0	16,766,695	69.4	30.6
Husband-wife	9,590,639	69.8	3,410,963	53.1	13,001,602	73.8	26.2
Female householder, no husband present	1,798,457	13.1	1,469,939	22.9	3,268,396	55.0	45.0
Other	240,281	1.7	256,416	4.0	496,697	48.4	51.6
Household Type	13,739,016	100.0	6,424,030	100.0	20,163,046	68.1	31.9
Related households	11,629,377	84.6	5,137,318	80.0	16,766,695	69.4	30.6
Male householder	8,094,094	58.9	2,662,793	41.5	10,756,887	75.2	24.8
Female householder	3,535,283	25.7	2,474,525	38.5	6,009,808	58.8	41.2
Nonrelated households	2,109,639	15.4	1,286,712	20.0	3,396,351	62.1	37.9
Male householder	1,087,466	7.9	662,558	10.3	1,750,024	62.1	37.9
Female householder	1,022,173	7.4	624,154	9.7	1,646,327	62.1	37.9
Complex Household*	13,739,016	100.0	6,424,030	100.0	20,163,046	68.1	31.9
Not complex	8,462,806	61.6	3,707,830	57.7	12,170,636	69.5	30.5
Complex	5,276,210	38.4	2,716,200	42.3	7,992,410	66.0	34.0
Sex of householder	13,739,016	100.0	6,424,030	100.0	20,163,046	68.1	31.9
Male	9,181,560	66.8	3,325,351	51.8	12,506,911	73.4	26.6
Female	4,557,456	33.2	3,098,679	48.2	7,656,135	59.5	40.5
Age of householder	13,739,016	100.0	6,424,030	100.0	20,163,046	68.1	31.9
18-29	3,278,772	23.9	2,562,815	39.9	5,841,587	56.1	43.9
30-49	8,866,577	64.5	3,398,001	52.9	12,264,578	72.3	27.7
50+	1,593,667	11.6	463,214	7.2	2,056,881	77.5	22.5
Race of householder	13,739,016	100.0	6,424,030	100.0	20,163,046	68.1	31.9
White alone	9,761,182	71.0	3,628,444	56.5	13,389,626	72.9	27.1
Black alone	1,739,722	12.7	1,199,461	18.7	2,939,183	59.2	40.8
AIAN alone	119,506	0.9	130,467	2.0	249,973	47.8	52.2
Asian alone	691,600	5.0	275,907	4.3	967,507	71.5	28.5
NHPI alone	24,931	0.2	25,985	0.4	50,916	49.0	51.0
Some Other Race alone	1,015,044	7.4	969,333	15.1	1,984,377	51.2	48.8
Two or more races	387,031	2.8	194,433	3.0	581,464	66.6	33.4
Hispanic Origin of Householder	13,739,016	100.0	6,424,030	100.0	20,163,046	68.1	31.9
Non-Hispanic	10,879,293	79.2	4,647,791	72.4	15,527,084	70.1	29.9
Hispanic	2,859,723	20.8	1,776,239	27.6	4,635,962	61.7	38.3

Hhr: householder

AIAN: American Indian or Alaska Native; NHPI: Native Hawaiian or Pacific Islander

*Not complex: Householder parents with no spouse present or married couple households with biological or adopted children

Complex: All other households

Note: The number of children in the 2010 Census is limited to the housing unit population in the 50 states and the District of Columbia.

Source: 2010 Census – Special Tabulation