

Are Census Omissions of Young Children Due to Respondent Misconceptions about the Census?

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Received: September 3, 2020

Accepted: September 27, 2020

Available online: October 9, 2020

doi:10.11114/ijsss.v8i6.4994

URL: <https://doi.org/10.11114/ijsss.v8i6.4994>

Abstract

The United States Census Bureau acknowledges the systematic undercount of young children in censuses and widely used surveys. Despite the growing body of research to understand the scope and characteristics of undercounted young children, little is known about likely causes. Missing from the research are efforts to talk with respondents about possible reasons for young child omissions. This study addresses that shortcoming using data from an online survey asking 800 respondents with young children several questions related to children and the census. The results indicate that many respondents have doubts about including young children in the census count for their household. Only 82 percent of low-income parents of young children responded that they would include their young child in the census count for their household. This percentage was lower if children had weaker ties to a household. These survey results provide evidence that misconceptions and confusion about including young children in the census exist and could easily result in young child omissions. These findings warrant replication and suggest that significant changes in instructions are needed to dispel these respondent misconceptions.

Keywords: census, undercount, young children, response error, misconceptions, omissions

1. Introduction

1.1 *The Problem of Young Child Omissions*

It is well documented that coverage error occurs in every United States Census (e.g., Fay, Passel, Robinson & Cowan 1988, Robinson, Bashir, Das Gupta & Woodward 1993, Robinson 2010, U.S. Census Bureau 2012a, Hogan, Cantwell, Devine, Mule & Velkoff 2013, O'Hare 2019a). The U.S. Census Bureau relies on the metric of "net undercount" to identify population groups with coverage shortcomings. The 2010 Census had a net undercount of 4.6 percent for children ages 0 to 4 compared to a net undercount of 1.4 percent for children ages 5 to 13 and a net overcount of 0.7 percent for adults (O'Hare 2015). Since 1980, the net undercount rate for young children has increased from 1.4 percent to 4.6 percent while the net undercount rates for most other age groups have decreased (O'Hare 2015, O'Hare 2019a).

The net undercount reflects a balance of offsetting errors, essentially erroneous enumerations (e.g., duplicates and persons counted when they should not be counted) and whole-person imputations (to account for incomplete enumerations) compared with omissions (e.g., persons left off a census record and persons in households missed entirely in the census) (O'Hare 2019b). U.S. Census Bureau (2016) found that the omissions rate for the youngest children was 10.3 percent in the 2010 Census. Young children had a higher omissions rate than any other age group. The rate of erroneous enumerations and the rate of whole-person imputations for young children were consistent with rates for other age groups, but insufficient to bring the net error to a level similar to other age groups. This analysis found that high omissions rates were driving the high net undercount of young children and clarified that solving the problem of a high net undercount of young children meant determining why young children are omitted at such a high rate.

This research focuses on the United States, but the problem addressed is seen in many other countries and contexts. O'Hare (2017) found young children also had high net undercount rates in the censuses of many other countries, and like the United States Census, young children had higher net undercount rates than older children and adults. There is also evidence that young children are missed at a high rate in major Census Bureau surveys (Jensen & Hogan 2017, U.S. Census Bureau 2019a). Moreover, the results discussed in this article are likely to have application to many data collection

activities where parents are asked to list their children. The problem identified is subtle, but the evidence suggests it is relatively pervasive.

Errors in census coverage reverberate throughout the federal statistical system. Reducing undercounts in the census is important, in part, because census data, and post-census population estimates based on census counts, are used to weight almost every survey inside and outside of government. Census data are also used as denominators in many rates and ratios. For these reasons, the undercount of young children in the census impacts nearly all statistics produced about young children.

These measurement problems are not only a methodological issue, they are a social justice issue. In the United States, census data are used to distribute about \$1.5 trillion a year to states and localities (Reamer 2019). Areas that do not get a complete count do not get their fair share of such resources. The young children who are most in need of government assistance are often living in communities where they are less likely to get the funds they deserve because of an incomplete census count.

1.2 Characteristics of Undercounted Young Children

In the past decade, several studies have provided new information on the high net undercount of young children in the U.S. Census (O'Hare 2015, O'Hare 2019a). The Census Bureau analyzed data from the 2010 Census to identify the characteristics of households with enumeration errors involving young children. This body of work is summarized in U. S. Census Bureau (2019b) and found consistent evidence that young children with the characteristics listed below were most at risk of being missed in the 2010 Census. These "at risk" household characteristics suggest that studies involving lower income households might provide important insights into causes.

- Children with a relationship to the householder other than biological or adopted child.
- Children who were racial or Hispanic minorities.
- Children living in complex households.
- Children living in renter-occupied housing units and multi-unit structures.
- Children living in the smallest and the largest households.
- Children who moved around the time of the census.
- Very young children.
- Children who were enumerated in the Nonresponse Follow-up operation.

While the error rates were highest for these groups, U.S. Census Bureau (2017a) found that households that fit the description of being "easier-to-enumerate" still included evidence of young child omissions. Given that the vast majority (81 percent) of all young children in 2010 were the biological child of the householder (U.S. Census Bureau 2017b), even low error rates for these young children had a major impact on the 2010 undercount. In a study using data from the Census Coverage Measurement evaluation in 2010 (U.S. Census Bureau 2017a) about 72 percent of the identified omissions were biological children. That research concluded that the Census Bureau will not resolve the undercount of young children until the issue of why biological young children are omitted from census forms is addressed. This study addresses that issue.

1.3 Potential Reasons for Young Child Omissions

While the Census Bureau research identified the types of households most at risk, it did not determine the causes. U.S. Census Bureau (2019b) provided potential explanations, noting that it is unlikely that a single factor or cause explains this coverage problem. Cutting across several of these possible explanations (and noted in U.S. Census Bureau 2018) is the suspicion that respondents for households with complex membership may misunderstand who to include in their census count. However, that explanation did not seem to address the issue of undercounted biological children. While young children in complex families have a higher risk of being missed in the census, young children who were biological or adopted children of the householder were the majority of young children missed in the 2010 Census (U.S. Census Bureau 2017a).

In the 2010 Census there was a coverage improvement operation that used a series of questions to remind people of individuals that they might have omitted in error. One of those prompts specifically asked about, "children, such as newborn babies and foster children." A review of the results from that operation found that some respondents who were willing to complete a census form and return it by mail in 2010, marked this coverage question indicating confusion about including children. About one third of all young children who were added to the 2010 Census because of this question were biological children (U.S. Census Bureau 2017c). This suggests that some respondents are confused about whether they should be including their biological children on their census forms. The Census Bureau research team recommended

directly asking households with young children their attitudes and behaviors relating to young children and the census. It does not appear that the Census Bureau conducted this type of research prior to the 2020 Census. This study supplements the findings of these research projects by taking the additional step to probe with respondents about the possible reasons for response errors involving young children.

1.4 Researching the Attitudes and Behaviors of Census Respondents

Researchers employ multiple methods to try to understand the assumptions that respondents make when responding to questions in a census or survey. Surveys, qualitative studies, and focus groups are useful tools to explore the attitudes and behaviors of respondents. Assumptions about confidentiality of responses, the government's need to know certain things, and the people who should be included in the census or survey can impact who respondents include in their household roster.

Asking respondents about their likely behavior in a census or survey is a commonly used approach to gain an understanding of how respondents are likely to respond to a question. The Census Bureau, and others, have used surveys to collect information about how respondents view the census; most notably, the Census Barriers, Attitudes, and Motivators Study (CBAMS) surveys in 2008 and 2018. In both the 2008 and 2018 CBAMS surveys (U.S. Census Bureau 2012b, U.S. Census Bureau 2019c), respondents were asked if they thought noncitizens were supposed to be included in the census, but they did not ask a similar question about young children. The Census Bureau also used the CBAMS data to produce a report on attitudes specific to households with young children. (U.S. Census Bureau 2019d). The Census Bureau regularly conducts a tracking study to survey the population regarding attitudes and understanding of census-related topics.

1.5 Understanding Attitudes and Behaviors Specific to Young Children

It is only in the past few years that researchers have asked survey respondents if they would include a young child on their census questionnaire and if not, why. To the best of our knowledge this is the first time such an approach has been used to gain a better understanding of why young children are missed at such a high rate in the census.

This study builds on some previous efforts along this line. In the summer of 2018, Vargas (2018) used a nationwide survey of Latinos conducted by the National Association of Latino Elected Officials to assess respondents' understanding of young children and the census. They found that 15 percent of respondents who had a child under age 5 in the home were not sure they would count them in the census. This data is only for Latinx, but it is highly suggestive. In the fall of 2019, Article I, a national civic campaign to promote the 2020 Census, commissioned a survey of several populations, including Hard-to-Count groups, and asked about whether respondents thought young children were supposed to be included in the census (Article I 2019). They found that about a third of the general population were not sure if, "the census counts all children and/or babies." For young adults (age 18-34) which is the age group most likely to be parents of young children, 40 percent were not sure if children or babies were supposed to be included in the census. Authors of this study concluded, "Misinformation and a lack of knowledge are standing in the way of everyone being counted in the 2020 Census – especially when it comes to young children."

These findings are consistent with results from two Census Bureau studies. A qualitative study of 2010 Census respondents (Schwede & Terry 2013) found that many respondents did not believe the Census Bureau (or the federal government) wants children included in the census count. Schwede & Terry (2013) found "respondent confusion" as the most frequent reason for coverage errors. Nichols et al. (2014a, 2014b, 2014c) conducted a series of short surveys where respondents were asked, "What information do you think the census typically collects every 10 years?" Respondents were provided with several choices. The percentage who thought the Census Bureau collects, "Names of children living at your address" was 7 to 9 percentage points lower than the percentage who thought the Census Bureau collects, "Names of adults living at your address." While this survey question asked about names rather than about information on individuals, it suggests that some people think the census does not request or need information on children. This survey also focused on all children rather than young children, but the results are highly suggestive.

1.6 Study Hypotheses and Implications of Research Results

The purpose of this study was to determine if census errors of omission involving young children occur as a consequence of respondents misunderstanding who to include in the census. Previous research identified this as a possible explanation for the observed response errors. However, only by interviewing respondents can we obtain the information needed to conclude that one reason for the high undercount of young children in the census is that respondents are uncertain if young children should be included in the census. Asking respondents directly about young children and the census can provide important insights into where response errors might occur and how they might be addressed. The evidence uncovered in this study may inform efforts to improve the coverage of young children in the 2030 Census, in censuses in other countries, and in key Census Bureau surveys. Improving the coverage of young

children will have far reaching implications on improving the quality of data about this vulnerable population.

2. Method

2.1 Research Design

Lake Research Partners designed and administered an online survey to examine perceptions about the census and young children and explore the effectiveness of potential messages. The survey included 40 total questions and required about 15 minutes to complete. Our analysis is based on responses to four of the survey questions. The questions asked prior to these four questions included a series of questions to collect basic demographics and assessments of the respondent's familiarity and interest in the census. We found no reason to believe those questions would bias answers to our questions of interest.

2.2 Survey Questions Analyzed in This Study

This report focuses on responses to the following four survey questions that assess the willingness of respondents to include young children in the census and identify possible reasons that people might not include a young child in the census.

Q18. The census counts everyone where they live and sleep most of the time, even if the living arrangement is temporary, so long as the person has no other permanent address. Would you include the following people on a household's census form or not?

Q19. Would you include the following people on a household's census form or not?

Q20. The census asks basic questions, such as, "how many people are in your home?" A number of people leave children ages 5 and under off the census. If you were answering that question on the census today, would you count children ages 5 and under who live in your home, would you not count children age 5 and under, or are you not sure?

Q21. Why do you think people might not include children ages 5 and under on the census form? (Select all that apply)

Half of the sample responded to question 18, the other half responded to question 19. This was done to test the impact of providing an instruction about who is supposed to be included in the census. The full sample responded to questions 20 and 21.

2.3 Study Participants

The target universe for this study was households with children ages 5 and under, making less than \$50,000 per year. In other research on young children the age group includes children ages 0 to 4. In this study children age 5 were also considered young children. Ages 0 to 5 was used rather than ages 0 to 4 to reduce the costs of data collection. The net undercount in the 2010 Census for children age 0 to 4, at 4.6 percent, is very similar to the net undercount estimate of 4.3 percent for children ages 0 to 5. We do not believe that data collected for households with children ages 0 to 5 would produce different results than data collected for households with children ages 0 to 4. The demographics of the study sample were expected to parallel the demographics of the target population. The survey collected race and Hispanic origin data allowing for multiple responses. In this report, race breakouts reflect responses of a race alone or in combination with other races, so some individuals are included in more than one race group. We analyze results for Non-Hispanic White and Non-Hispanic Black respondents rather than all White and all Black respondents. Hispanic respondents are of any race or races. To make sure the study sample reflected the population, Lake Research Partners set quotas based on census demographic distributions of adults with children ages 5 and under, making less than \$50,000 per year.

2.4 Sample Size and Precision

A total of 800 respondents were recruited through several internet panels including Precision Sample and Opinionet. All final estimates in this report are weighted to represent the national demographics of parents with young children and low incomes. Because these survey results are based on a sample, they are subject to sampling error. The margin of error for estimates based on the full sample is plus or minus 3.5 percentage points. The margins of error for demographic subgroups are larger, limiting our ability to determine statistically significant differences among demographic groups.

3. Results

3.1 Recruitment Results

Lake Research Partners conducted this online survey from July 15 to July 28, 2019. A national sample of 800 parents responded to the survey. Table 1 summarizes the demographics of the sample respondents in the online panel and compares the sample distributions to demographic distributions of low-income households with children ages 0 to 5 from

the 2018 American Community Survey. The demographics of the sample are similar to those of the target population.

Table 1. Demographic Characteristics of Study Respondents

	Online Panel Respondents	Target Population
	Percent of Total	Percent of Total
Race/Hispanic Origin		
Non-Hispanic White (alone or in combination)	40	44
Non-Hispanic Black (alone or in combination)	18	21
Other Races	14	17
Hispanic or Latinx	34	31
Sex		
Male	40	38
Female	60	62
Age		
Under 30	42	43
30 to 39	45	45
40 to 49	10	12
50 to 64	3	1

Description: As shown in Table 1, the demographic distribution of the study respondents is similar to the target population based on the 2018 American Community Survey's national distribution of households with at least one child ages 0 to 5 and family income less than \$50,000.

Source: Partnership for America's Children Dataset (N=800 Parents of Children ages 5 and under who make under \$50,000 per year, nationwide sample, August 2019). Lake Research Partners; 2018 American Community Survey Public Use Microdata Sample (PUMS) file analysis on the IPUMS system at the University of Minnesota.

3.2 Would Respondents Include Their Young Children in the Census Count of People in Their Home?

The first question we analyze asked if respondents with young children would include them in the census count of people in their home. Question 20 stated,

The census asks basic questions, such as, "how many people are in your home?" A number of people leave children ages 5 and under off the census. If you were answering that question on the census today, would you count children ages 5 and under who live in your home, would you not count children age 5 and under, or are you not sure?

One of the key findings from this survey is based on the responses to this question. The results indicate that many respondents are mistaken or uncertain about whether they should count children ages 5 and under in the census. The survey found that 18 percent of respondents indicated that they would not count or were not sure if they would count children ages 5 and under who live in their home (10 percent indicated that they would not count and 8 percent indicated that they were not sure if they would count). These results suggest that 10 to 18 percent of low-income households could erroneously omit one or more young children when completing the census.

While some could argue that a vast majority (82 percent) responded correctly, it is important to understand that this percentage should be close to 100 percent. Any value less than 100 percent equates to young children that the census will miss. As part of the survey's screener questions, these respondents told us their household included young children. These are the young children that we think are the easiest to count correctly.

It was possible to look at these results based on the respondent's race, Hispanic origin, tenure, education, and marital status, but given the sample sizes, we cannot conclude if any of these rates differ beyond sampling error. We also looked at these results based on the respondent's experience with the United States Census. Again, small sample sizes limit our conclusions, but the data suggest that the misunderstanding about counting young children may be a greater problem for people unfamiliar with the United States Census and people who do not believe it is important to have an accurate census. Many of the adults with little census-taking experience are likely to be younger adults and parents of young children.

3.3 Why Might Respondents not Include Young Children?

The role of confusion and misconceptions about the census is reinforced by data from question 21 that asked respondents why they thought a young child might not be included on a census form, offering a list of possible reasons.

Question 21 asked,

Why do you think people might not include children ages 5 and under on the census form? (Select all that apply)

The possible reasons and survey responses are displayed in Figure 1. There are limitations to this question’s design. If the question had been open-ended it might have better captured what the respondent believed versus measuring if they thought the list included reasonable explanations. Nonetheless, responses to this question provide us with some insights.

Half of all respondents marked the general response of *“The person filling out the form isn’t sure whether or not to count the children.”* About 38 percent marked the response, *“The person filling out the form doesn’t see why the government needs to know about the children since they are not in school yet.”* These were the top two reasons selected. Additional reasons that were identified by at least 24 percent of the respondents are shown in Figure 1. Addressing the gap in census knowledge by explaining the local value of accurate census counts, including counts of young children, and educating respondents about census basics might reduce omissions caused by these misunderstandings.

To try to understand the most likely reasons for census omissions of young children, we reviewed the reasons identified based on the respondent’s answer to question 20 about including young children in their census count. For people responding *“No, they would not include a young child in their census count”*, the most common reason selected for why a young child might not be included on a census form was, *“The person filling out the form doesn’t see why the government needs to know about the children since they aren’t in school yet.”* Fifty percent of the households responding *“No”* to question 20 identified this as a possible reason a young child might be left off a census form. It is reasonable to think that these respondents were identifying the reason why they would not include the young child in their census count. About 35 percent of the *“No”* respondents identified, *“The person filling out the form isn’t sure whether or not to count the children.”* These two reasons were by far the most likely responses from this subset of respondents.

The sample size for the *“No”* respondents to Q20 is small – only 76 cases. This limits our ability to make comparisons, but it appears that these respondents differ from the other respondents in the reasons they think are most likely. These reasons might be the ones we should focus on.

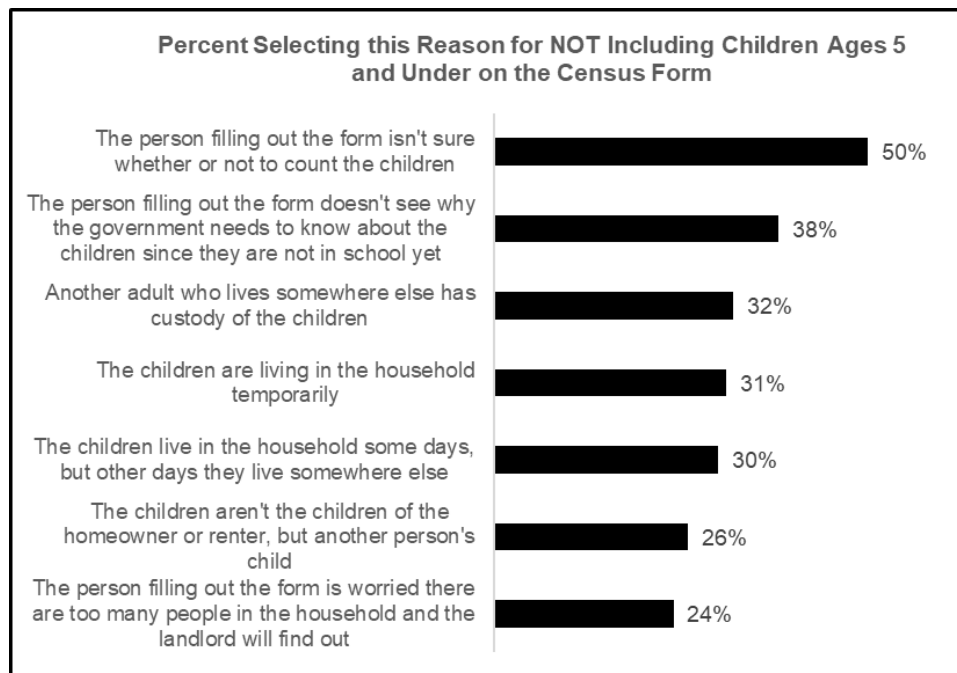


Figure 1. Reasons for Not Including Young Children on the Census Form

Description: As shown in Figure 1, survey respondents identified several likely reasons for not including children ages 5 and under on the census form, notably that the person filling out the form isn’t sure whether or not to count the children and the person filling out the form doesn’t see why the government needs to know about the children since they are not in

school yet.

Source: Partnership for America’s Children Dataset (N=800 Parents of Children ages 5 and under who make under \$50,000 per year, nationwide sample, August 2019). Lake Research Partners.

3.4 Which Living Arrangements Involving Young Children Are the Ones Where Young Children Are Most Likely to Be Missed?

3.4.1 Overview

While the survey data indicate that all young children are at risk of not being included in the census, young children in some living arrangements appear to be more vulnerable than others. Question 18 stated,

The census counts everyone where they live and sleep most of the time, even if the living arrangement is temporary, so long as the person has no other permanent address. Would you include the following people on a household’s census form or not?

Several specific living arrangements involving young children were listed with response options of “Would include”, “Would not include”, and “Not sure if would include.” This question does not provide the full context of the census questionnaire and its instructions but there are important similarities. Prior to asking questions about rostering residents, the 2020 Census questionnaire states, “Count all people, including babies, who live and sleep here most of the time.” This is similar in content to the wording of Question 18 in this study. As with previous questions, these findings have limitations but provide insights into possible reasons for observed census errors. Figures 2 and 3 summarize the results.

3.4.2 Basic Living Arrangements

Figure 2 includes the most basic living arrangements, examples where there should be little ambiguity about including a young child; the respondent should include all of these persons on the household’s census form. Three of these basic examples use the phrase “all of the time” suggesting there is no other place where the child would be counted.

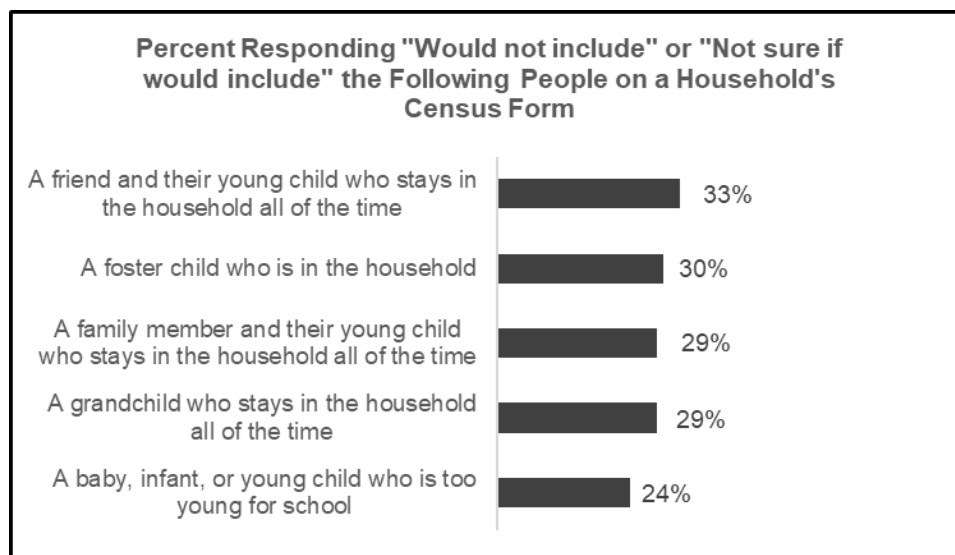


Figure 2. Potential Census Omissions by Living Arrangements – Basic Examples

Description: As shown in Figure 2, respondents are uncertain about including young children with very basic living arrangements on the household’s census form.

Source: Partnership for America’s Children Dataset (N=400 Parents of Children ages 5 and under who make under \$50,000 per year, nationwide sample, August 2019). Lake Research Partners.

Despite limitations in the wording of this question and potential confusion on the part of the respondent, our take-away from these results is that some respondents are confused about who to include when they complete their census form. For each of these basic examples a noteworthy proportion of the survey respondents indicated that they would not include or were not sure if they would include these persons on the census form. These are relatively common living arrangements and these children (and their families) need to be counted in the census. In each of these instances about half of the

responses shown in Figure 2 were, “Would not include”, while the other half were, “Not sure if they would include”.

For example, 24 percent of respondents indicated that they would not include or were not sure if they would include a baby, infant, or young child who is too young for school and 29 percent of respondents indicated that they would not include or were not sure if they would include a grandchild who stays in the household all of the time. The high share of parents indicating that they might not include a child too young for school (24 percent) underscores the important distinction between preschool-age children and school-age children. Children ages 0 to 4 have a very high net undercount compared with the net undercount for school-age children.

Figure 2 shows that unrelated children (such as foster children and children of a friend) as well as related children (such as grandchildren) may have a high risk of being omitted on a census form. As was true with question 20, we find that while a large majority of respondents would include these children, the percent that would not include these persons or were not sure about including these persons should be far closer to zero.

3.4.3 Complex Living Arrangements

Figure 3 highlights that more complex living situations are likely to be especially problematic for correctly counting young children. While most of the examples summarized in Figure 2 included information suggesting the child stays there all the time, the examples in Figure 3 do not. Nonetheless, the correct response would be to include all these persons when completing the household’s census form. Some involve temporary stays and less clarity about where the child lives most of the time. The results in Figure 3 show an even greater proportion of respondents indicating that they would not include or are not sure if they would include these persons (including these children) with more complex living arrangements on a household’s census form. For these examples there was also a fairly even split between the “Would not include” and “Not sure if would include” responses.

The example of a “friend and their young child who stays in the household for several weeks or months and has no permanent home” is a scenario that 46 percent of respondents replied that they would not include or were not sure if they would include the friend and their young child. Without any other permanent home, these individuals need to be included where they are living on April 1st. It is concerning to find that only slightly more than 50 percent of respondents would include these persons (especially these young children) in the census for their household. Clearly guidance is needed for respondents to know when they should count persons (including young children) who are living with them temporarily.

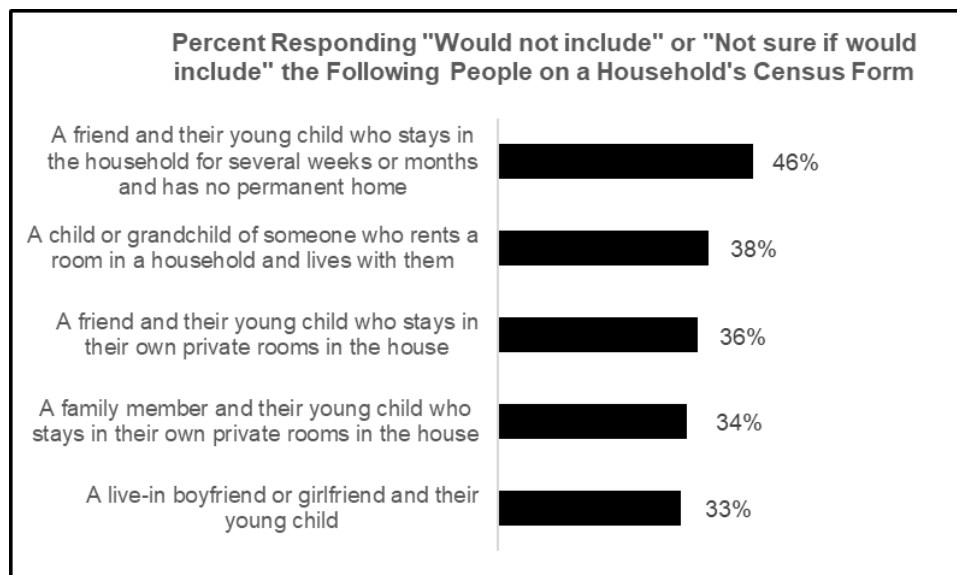


Figure 3. Potential Census Omissions by Living Arrangements – Complex Examples

Description: As shown in Figure 3, as the living arrangements become more complex, the percentage of respondents uncertain about including young children on the household’s census form increases.

Source: Partnership for America’s Children Dataset (N=400 Parents of Children ages 5 and under who make under \$50,000 per year, nationwide sample, August 2019). Lake Research Partners.

3.5 Does Providing Respondents with Basic Instructions Help?

The full sample of 800 survey respondents were put into a split panel with one panel given the instruction about where people should be counted in the census before being asked about these living arrangements. The other panel was given no instructions about who to count. The results summarized in Figures 2 and 3 are based on the 400 sample respondents given the following instruction.

The census counts everyone where they live and sleep most of the time, even if the living arrangement is temporary, so long as the person has no other permanent address. Would you include the following people on a household's census form or not?

The other panel was simply asked,

Would you include the following people on a household's census form or not?

Providing respondents with this general statement about who to include on the census questionnaire made little or no difference in the proportion of respondents indicating that they would include persons with various living arrangements. The responses from the panel that had the instruction before answering are nearly identical to the responses from the panel that did not have the instruction (see Table 2). None of the observed differences are statistically significant. This may indicate that respondents had a conception of who they should include on their census form and this instruction had little impact on that conception, or it may indicate that the respondents failed to read these instructions. Another possibility is that the instruction or the entire question was read but misinterpreted by some respondents. It raises the issue of what the best method is to inform respondents of the rules surrounding who they should and should not include on their census form.

Table 2. Living Arrangements – Do Basic Instructions Help?

Living Arrangement	Percent Responding, “Would not include” or “Not sure if would include”	Percent Responding, “Would not include” or “Not sure if would include”
	WITH Instruction	WITHOUT Instruction
A baby, infant or young child who is too young for school	25	20
A grandchild who stays in the household all of the time	29	28
A family member and their young child who stays in the household all the time	29	26
A foster child who is in the household	31	29
A live-in boyfriend or girlfriend and their young child	33	31
A friend and their young child who stays in the household all the time	33	33
A family member and their young child who stays in the household in their own private rooms in the house	34	33
A friend and their young child who stays in the household in their own private rooms in the house	36	38
A child or grandchild of someone who rents a room in the household and lives with them	38	40
A friend and their young child who stays in the household for several weeks or months and has no permanent home	46	53

Description: As shown in Table 2, the percentages of respondents responding that they would not include a child or were not sure if they would include a child given a variety of living arrangements are very similar with or without a basic instruction about who to include.

Source: Partnership for America's Children Dataset (N=800 Parents of Children ages 5 and under who make under \$50,000 per year, nationwide sample, August 2019). Lake Research Partners.

3.6 Are children of family members more likely to be included in the census?

Four living situations for young children were described where the terms “family member” and “friend” were interchanged. Table 3 shows the results based on each scenario for the examples that included, “A family member and their child” and those that included, “A friend and their child.” There are no significant differences in the percentage of survey respondents that would include these people on their census form based on which one of the two terms is used. This suggests that the living situation of a young child may be more important than the relationship of the young child to the householder.

Table 3. Living Arrangements - Friend versus Family Member

Living Arrangement	Percent Responding, “Would not include” or “Not sure if would include”	Percent Responding, “Would not include” or “Not sure if would include”
	Family member	Friend
A ... and their young child who stays in the household all the time	28	33
A ... and their young child who stays in the household some days but not all the time	76	78
A ... and their young child who stays in the household for several weeks or months	55	50
A ... and their young child who stays in the household in their own private rooms in the house	34	37

Description: As shown in Table 3, the percentages responding that they would not include a child or were not sure if they would include a child given a variety of living arrangements are very similar if the child lives with a family member or a friend.

Source: Partnership for America’s Children Dataset (N=800 Parents of Children ages 5 and under who make under \$50,000 per year, nationwide sample, August 2019). Lake Research Partners.

4. Discussion

4.1 Omissions of Young Children

Recent Census Bureau research found evidence of high rates of omissions for young children in complex households, but also evidence of a large number of omissions for biological children in households that were not considered to be complex. The results included in this paper confirm our hypothesis and provide a possible explanation for at least some of those errors – misunderstanding who should be included on a household’s census form. The survey data suggest that some of these omissions are driven by misconceptions about the need to include young children in the census. This helps answer the puzzling question of why some parents would neglect to include their biological children on their census form – they did not think they were supposed to include them.

This survey found that a substantial proportion of respondents from low-income households with young children would not include their children in the household count for the census. While this survey did not ask them directly why they would not include their children, the survey did ask why people might omit young children. Many respondents who indicated that they would not include a young child in their census count identified, “not thinking the government needs to know about young children” as a possible reason. It is reasonable to assume that misconceptions about young children may apply to Census Bureau surveys as well. For example, if a respondent feels the government does not need to know about the existence of a young child, that may impact their responses to both the census and to any Census Bureau (or government) survey.

While the potential for response errors involving young children were found for the most basic living arrangements, they were especially likely for children with more complex living arrangements, such as those involving temporary stays. This research found that respondents were confused about including young children with tenuous attachments to their household and many were confident that they should not include those young children when in fact, they should. This finding is akin to the concept of “residential ambiguity” used by Martin (2007) and “family boundary ambiguity” used by Brown and Manning (2009). These results fit well with previous research identifying young children in complex households as being especially at risk.

4.2 Limitations

Any interpretation of these survey results must take several study limitations into account. This survey was not conducted in a census setting. The context of a United States Census involves substantial outreach efforts and that context was lacking when the data used in this study were collected. Only the Census Bureau could conduct a study in a true census context. However, Jensen and Hogan (2018) show that the undercount of young children seen in the United States Census is also seen in regular demographic surveys conducted by the Census Bureau. This online survey took place in circumstances like such surveys. This suggests that the mechanisms leading to undercounts of young children in the United States Census are operating in non-census contexts as well. As O’Hare notes in an examination of young child undercounts in countries around the world, the net undercount of young children is seen in a variety of cultural contexts, a

variety of census-taking approaches, and a variety of evaluation mechanisms (O'Hare 2017).

The respondents' perceptions about young children and the census can only be considered important insights into their possible behaviors. Not every online survey respondent will necessarily be asked to complete a census form (especially those living in complex multi-family households). Nonetheless, we feel that their responses to this survey identify important perceptions that could contribute to census response errors. The noted percentages may however overstate or understate the proportion of persons with these perceptions who would ultimately complete a census form.

This study only allows us to generalize about low-income households with young children, not all households with young children. It is important to acknowledge that responses from this sample may also differ from census respondents with low incomes and young children for several reasons. First, the people who participate in online panels are likely to be comfortable with responding to surveys online and may be systematically different from those who are not. Second, respondents may respond differently in an online format than they would in a paper format, a telephone interview, or a personal visit interview. The survey was also only conducted in English. The best way to address these limitations would be to repeat this type of research using additional modes of data collection and in-language instruments and a more diverse sample. Such experiments would likely yield different results, but we do not believe the results would necessarily find fewer misconceptions among non-English speakers or non-Internet users.

Finally, additional testing of the research tool might have improved the validity of the results. Some of the survey questions may have been confusing or misunderstood by some respondents. For example, the survey provided hypothetical living situations including an adult and a young child but did not ask separately about including the adult or the child. We assumed the responses imply that the child would or would not be included, but this might not have always been the respondent's intention. The survey included a list of possible explanations for a respondent neglecting to include a young child when completing the census. Respondents' reactions to these suggestions might differ from what they would have offered in an open-ended response format. Question 20 included the phrase, "*a number of people leave children ages 5 and under off the census.*" It is possible that including this statement influenced some responses. It is our position that none of these limitations are serious enough to negate the findings. Prior to any new research efforts to explore respondent's assumptions about the census, additional testing of the survey questions should occur to try to eliminate response errors due to potential misunderstandings.

4.3 Recommended Research

In order to minimize response error to any survey question, it is critical to understand respondents' assumptions and thought processes. The Census Bureau conducted numerous studies in the early part of the decade to help define the key questions and instructions for the 2020 Census forms. However, that research did not identify respondent misconceptions about including young children in the census as a problem to address. Similar, expanded research is warranted using cognitive interviewing techniques in addition to surveys such as this.

If early research had noted misconceptions about including children as a potential problem, additional, specific wording changes to the instruments might have been possible and potentially could have helped more respondents to answer correctly. Our research found that providing a basic instruction, similar to the instruction on the 2020 form, on who to include (i.e., "everyone where they live and sleep most of the time") did not appear to make a difference in respondents understanding of the importance of including young children, suggesting that some respondents may require additional and more focused information to understand that "everyone" includes more than all adults. It appears that for some respondents, the term, "persons" in the instruction to "include all persons" might not include babies and infants. In her assessment of census coverage, Sullivan (2020) offered that one reason why children are undercounted in the census might be that adults completing the census form interpret "person" in the census instructions as meaning "adult".

Research on changes to the wording of rostering questions in Census Bureau surveys and in planning for the 2030 Census might lead to reductions in coverage errors involving young children. It is important for research to better identify respondent assumptions about who they believe they should include when they complete their census (or survey) forms to provide the clearest instructions that address these assumptions. Focus groups and cognitive testing should explore respondent interpretation of terms such as "children" and "young children" to be certain that the youngest children - newborn babies, infants and toddlers are acknowledged as included. These results suggest that specific, clear instructions in addition to educating respondents about the importance of including babies, infants, and young children in the census (and in surveys) may reduce coverage errors.

Acknowledging that a large number of parents misunderstand the need to include young children in their census count suggests that a robust outreach and education campaign aimed specifically at families with young children may help increase understanding of the importance of including young children in the census. Such efforts were a part of the 2020 Census Communications campaign and hold promise to dispel some census misconceptions. Evaluations of the messages used in the 2020 Census as well as messaging research prior to the 2030 Census are critical to reaching the populations

most at risk. The survey analyzed in this paper focused on low-income households, therefore including more Black and Hispanic respondents than would have been found in the general population. These are groups that research has found to be especially vulnerable to coverage error involving young children. Therefore, research to identify the most effective education and outreach in low-income communities might result in a reduction in the net undercoverage of young children in censuses and surveys. Identifying the right message, the right messenger, and the right network to get information to low-income families with young children are all important.

5. Conclusion

This survey provides the first set of data that uses responses from respondents living in households with young children to address the question of why young children are omitted at such a high rate in the census. This type of research is long overdue and points to misconceptions about the census as a likely explanation for why some parents do not include their young children when they complete their census form. Our findings indicate that many parents do not understand that the U.S. Census Bureau wants young children to be included in the census count. Consequently, many parents do not include young children in the census roster for their household. One common reason for this behavior is that parents do not believe there is any reason the government needs to know about the existence of young children before they reach school age.

This research also highlights that respondents for households with complex living arrangements are also likely to be confused about whether they should count all persons, especially young children. Survey respondents noted great uncertainty about whether to include persons (and young children) with temporary living arrangements and unrelated persons. These results are consistent with those reported by Vargas (2018) and Article 1 (2019).

This study provides the following four key findings regarding young children and the census, based on respondents in low-income households with young children:

- A large share of adults is not certain if young children are supposed to be included in the census count.
- Confusion about who to include and not understanding why the government needs to know about young children may explain why children are not being included on the census form.
- Respondents indicated greater confusion about including young children with more complex living arrangements in the census.
- Adding a basic instruction about who is supposed to be included in the census with no specific mention of children may not change the pattern of responses.

These survey results provide important evidence of a specific misconception about the census and young children that helps to explain how a national census could omit so many young children. The survey found that about 10 percent of respondents in low-income households with young children did not think, if they were completing a census form, that they would include young children in their census count. Another 8 percent were not sure. While a sample of online respondents differs from a sample of all householders, it is reasonable to assume that many of these survey respondents would have the responsibility of completing a census questionnaire. Even if the omission rates for households with young children was lower, we might find that between 5 and 10 percent of all households with young children shared this misconception or uncertainty. When we add to that the likelihood of greater response errors for grandchildren, foster children, unrelated children, and children living in complex households, we can start to see that response errors could explain a large proportion of the 10 percent of all young children that the Census Bureau estimates were omitted in 2010. For this reason, the findings of this survey appear to identify a key avenue to pursue to reduce errors and improve the quality of information about young children in the United States.

Acknowledgments

The authors thank the Partnership for America's Children and Lake Research Partners for the design of the survey and the production of the data that make this research possible. This research was funded in part by the Annie E. Casey Foundation. We thank them for their support but acknowledge that the findings and conclusions presented in this report are those of the authors alone, and do not necessarily reflect the opinions of the Foundation. Additional funding was provided by New Ventures Fund and Blue Shield of California Foundation.

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