Why Are Young Children Missed So Often in the Census?

By DR. WILLIAM P. O'HARE

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About the Author

Dr. William O'Hare is a demographer whose work over the past 30 years has been defined by the use of statistical data to elevate the needs of disadvantaged populations, such as children, the poor and racial minorities, on the public agenda. Dr. O'Hare has been involved in Decennial Census issues since the late 1970s. As the director of the National KIDS COUNT program at the Casey Foundation from 1993 to 2006, he used data from the Census Bureau on a regular basis.

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OVERVIEW

The Decennial Census is the most important data collection activity undertaken by the U.S. federal statistical system. Because census data are used to apportion Congress and draw redistricting lines for thousands of state and local single-member districts to meet the one-person/one-vote guidelines, the census is at the heart of our political system. Also, census data are used to distribute more than $400 billion in federal funds each year, and they are widely used by other government statistical agencies to calculate rates or design surveys.

Children are the age group most often missed in the Decennial Census – the reasons range from their living in hard-to-count neighborhoods to the fact that the census form only has space for complete demographic information on six household members.

The following are some key findings regarding the undercount of children:

» According the Census Bureau's Demographic Analysis, young children are missed at a higher rate than any other age group. In the 2000 census, there was a net undercount of more than 1 million children under age 10. More than three-quarters of a million children under age 5 were missed, which amounts to 4 percent of this population group.

» Minority children are missed most often. In 2000, black males under age 5 were missed at a rate of 5.3 percent, compared to 3.3 percent for non-black males in this age group. Among females, blacks under age 5 were missed at a rate of 5.4 percent, compared to 3.8 percent for non-blacks in this age group.

» Children are overrepresented in hard-to-count neighborhoods. Children are about 50 percent more likely than the elderly to be living in hard-to-count areas. One-fifth (20 percent) of children live in hard-to-count areas, compared to 14 percent of elderly. That pattern is seen in almost every state.

» The undercount of children results in reduced funding for needy families. Census counts are used, in whole or in part, for more than 140 programs that distribute more than $400 billion of federal funds to states and localities, including such child-focused programs as:

- Special Education Grants to states ($10.8 billion)*
- Head Start ($6.9 billion)
- State Children's Health Insurance Program ($5.9 billion)
- Foster Care Title IV-E ($4.7 billion)
- Improving Teacher Quality State Grants ($2.9 billion)

**All figures are for FY 2007.*

Prospects for 2010

There are a number of trends suggesting that it will be more difficult to get an accurate count of young children in 2010 than it was in 2000, including:

» Minority children have higher undercount rates, and the share of children age 0 to 4 that are from a racial or Hispanic minority population rose from 41 percent in 2000 to 47 percent in 2008.

» More children live in families with one or more undocumented immigrants. Nearly half (47 percent) of unauthorized-immigrant households are couples with children. The number of children with at least one unauthorized-immigrant parent increased from 3.9 million in 2003 to 5.5 million in 2008.

» The housing crisis will cause more families to double up in one housing unit or live in other temporary and unusual housing situations. An estimated 2 million children will be affected by the housing crisis, which will make it more difficult to get an accurate population count.

What Can Be Done

Child advocacy organizations can partner with the Census Bureau to promote general participation in the 2010 census. Child advocates can also join Census Complete Count Committees, which exist in most states and large cities, to educate people about the high undercount rate for children and to advocate for more of an effort to make sure children are included in the census.

There are several avenues that could be used by advocates, the Census Bureau, and other federal agencies to reach parents of young children with a message about the importance of including children in the census. Some of these are outlined below.

» ***Women, Infants, and Children (WIC)*** Materials promoting participation in the census could be sent to participants in the WIC program, which provides nutritional food for 8.2 million pregnant women and infants each month.

» ***Head Start*** Materials promoting participation in the census could be sent to the homes of the nearly 1 million children enrolled in Head Start (and Early Head Start). In addition, it might still be possible to include these programs in the Census in Schools program run by the Census Bureau.

» ***Child care facilities*** Materials promoting participation in the census could be sent to every family enrolled in child care facilities. Child care networks vary from state to state and city to city, but Census Bureau data from 2006 indicate that more than 4 million children under age 5 were in organized child care facilities.

» ***American Hospital Association*** The Census Bureau could work with the American Hospital Association to give a written notice (in the appropriate language) to all women who have a birth in January, February, or March of 2010, that it is important to make sure they record their new child in the census. About 1 million births are expected during these three months.

» ***American Association of Pediatrics*** Materials promoting participation in the census could be sent out to the offices of the 60,000 members of the American Association of Pediatricians to reach the parents of young children.

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The fact that children are the age group missed most often in the Decennial Census comes as a surprise to many people, even those who have closely followed census issues. Despite the long-standing problem of children being missed in the Decennial Census, little has been done to examine this issue.[1]

Missed children might be referred to as the "overlooked undercount" because the undercount of children has been a persistent problem that has been given relatively little attention over time. The high undercount of children challenges the image that the undercount is made up mostly of young adults and people who dodge the census-takers for nefarious reasons. Unlike adults, who may bear some responsibility for making sure they are counted in the census, children are dependent on others to make sure they are included. Yet in 1980, 1990, and 2000, Census Bureau data show children, particularly young children, are one of the groups most likely to be missed in the census.

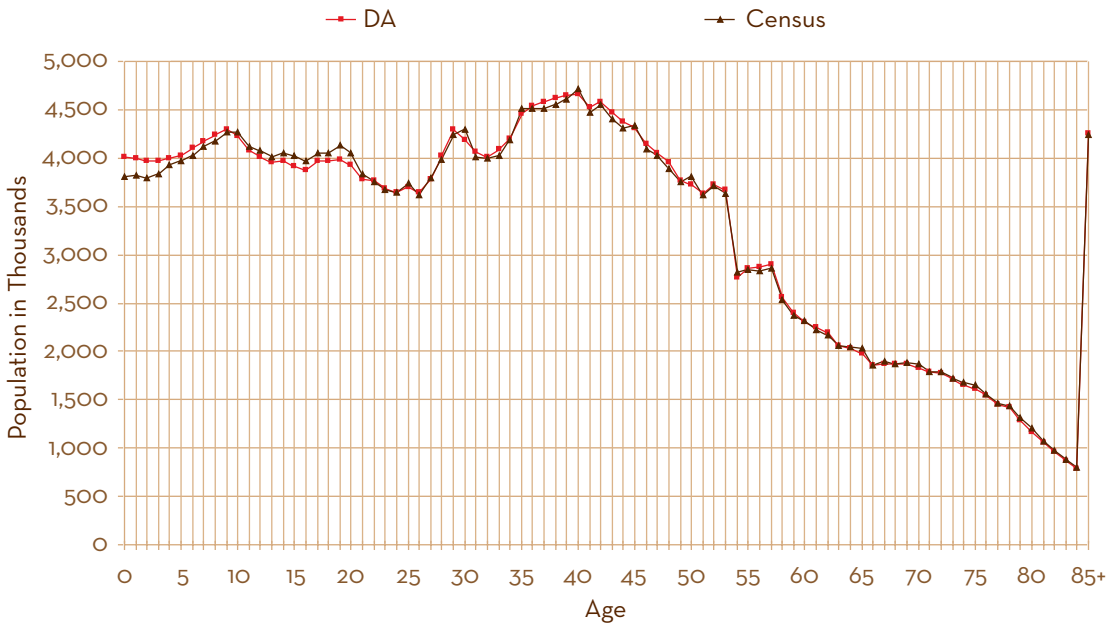
This publication will provide some background and information on the undercount of children, describe some theories about why children are missed in the census, and outline a few ideas for reaching the parents of young children with a message about the importance of being counted in the census.

The Undercount of Children

Earlier studies show that children have been undercounted in the census for decades.[2] In 1990, there is clear evidence that children were undercounted at a higher rate than older residents. One study showed the undercount of children (3.2 percent) was twice that of the general population (1.6 percent).[3]

Figure 1 compares the results of the 2000 Decennial Census to an independent estimate of the population. This figure shows very clearly where the two sets of data diverge, and it is among the population under age 20, particularly under age 5.

Figure 1. Demographic Analysis (DA) and 2000 Census Population Figures by Single Year of Age



Source: Presentation by Jason Devine from the U.S. Census Bureau at Council of Professional Associations on Federal Statistics (COPAFS) Meeting in Washington, DC, September 11, 2009.

In the 2000 census, demographic analysis conducted by the Census Bureau indicates there was a net undercount of about a half million children under age 18 (see Table 1). But not all children are missed at the same rate. Younger children tend to be missed most often.

Table 1 shows a net undercount of more than one million children under age 10 in the 2000 census that amounts to 2.6 percent of this age group. The rate is even higher for younger children. In the 2000 census, more than three-quarters of a million children under age 5 were missed, which amounts to 4 percent of this population group. (See Box 1, for an explanation on how the undercount is measured.)

Table 1. Net Undercounts (and Overcounts*) for Major Age Groups in 2000 Census from Demographic Analysis (DA)

Age in 2000	Census Total Population	Difference between DA and Census 2000	Percent Difference between DA and Census 2000
Total	**281,421,906**	**337,952**	**0.1**
Age 0 – 4	19,175,798	761,206	4.0
Age 5 – 9	20,549,505	280,976	1.4
Age 0 – 9	39,725,303	1,042,183	2.6
Age 10 – 17	32,568,509	(558,947)	-1.7
Age 0 – 17	72,293,812	483,235	0.7
Age 18 – 29	46,524,790	(322,482)	-.07
Age 18 – 64	174,136,341	259,029	0.1
Age 65+	34,991,753	(404,313)	-1.2

Source: Antonio Bruce, Arjun Adlakha, Peter Johnson, and J. Gregory Robinson, 2002, "U.S. Historical Profile of Demographic Analysis and Population Estimates: Components Across Time (1935 to 2000)," Population Association of America, Conference Poster Session.

**Numbers in parenthesis indicates a net overcount.*

Box 1 – Assessing the Undercount in the 2000 Census

Assessing the undercount in the 2000 census is complicated not only because there are two different methods used (Demographic Analysis and Dual System Estimates) that do not always agree, but also because both methods went through several revisions following the 2000 census. In the end, the Census Bureau concluded that its measurement of the undercount in the 2000 census was not sufficiently reliable to adjust the results of the 2000 census count.

Census undercounts are measured in one of two ways: 1) Demographic Analysis (DA), which examines census counts in relation to independent population estimates based on births, deaths, and migration estimates; and 2) Dual Systems Estimates, which compare census counts to a second survey taken soon after the census. DA is the only evaluation measurement that is consistent over the past few censuses and this method is particularly well suited for evaluating the count of children. One of the major uncertainties in using DA is its assumptions about migration from abroad. However, for young children only a very small share is foreign-born compared to older age groups. Data from the 2007 ACS show only 1 percent of children under age 5 are foreign-born, compared to 17 percent of prime working-age adults (age 25-44).

Consistent with the results of DA, revised Dual Systems Estimates for 2000 called Accuracy Coverage Evaluation (ACE) shows younger children (under age 10) overcounted at a lower rate than older children (age 10-17). The overcount rate for those under age 10 from ACE was -0.46 percent, compared to -1.32 percent for those age 10 to 17. (National Research Council, 2004, Table 6.7, p. 229.)

For more information on this topic see:

National Research Council, 2004, "The 2000 Census: Counting Under Adversity," Panel to Review the 2000 Census, Constance F. Citro, Daniel L Cork, and Janet L. Norwood, eds., Committee on National Statistics, Division of Behavioral and Social Science and Education, Washington, DC: The National Academies Press.

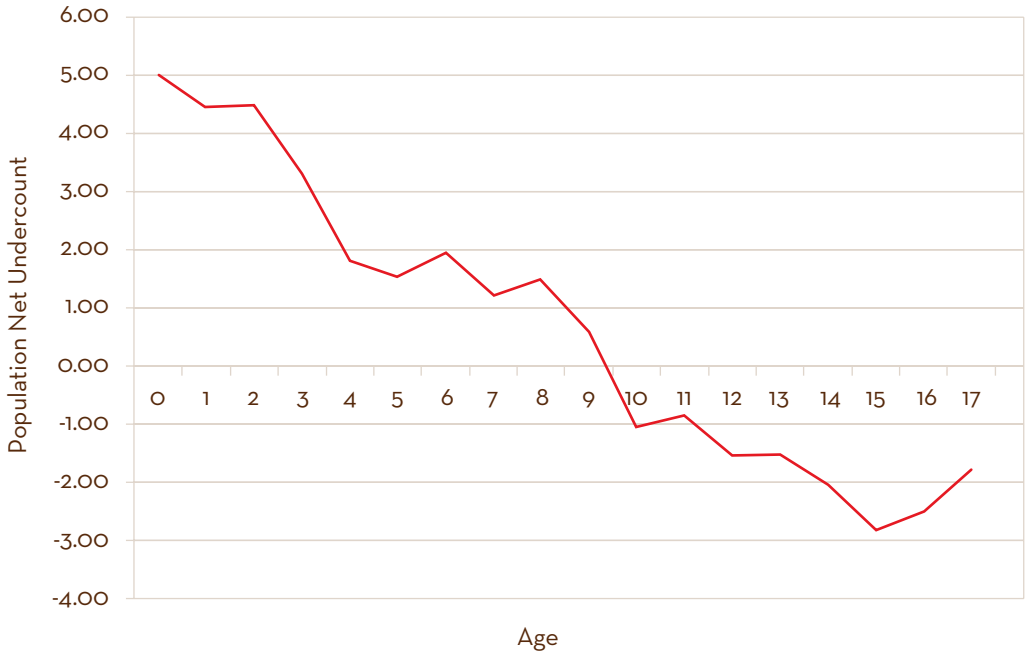
Decision of the Executive Steering Committee for ACE Policy (ESCAP) available at www.census.gov/dmd/www/pdf/EscapRep.html.

There is a clear gradient by age, with the youngest children being the most likely to be missed. Figure 2 shows undercount rates by single year of age from 0 to 17. The highest undercount rates are for those under age 4. For children between ages 10 and 17, there was a net overcount. Results from the 1990 census also show a somewhat similar trend. In 1990, both older and younger children were undercounted, but there was a much higher net undercount for young children than there was for older ones.[4]

While I have been using the term "missed" to refer to the net undercount rate, this is not quite accurate. The "net" undercount rate is a product of overcounts and undercounts. Separate data for undercounts and overcounts are not available from the demographic analysis method, but they are available for the total population from the Accuracy and Coverage Evaluation program (A.C.E.), which showed a net overcount of slightly over 1 million people. But this is a product of 17.2 million erroneous enumerations and 15.9 million omissions.[5]

In addition to children who are missed completely in the 2000 census, more than 2.3 million children were included in the census figures only because they were "imputed." These are records added to the census count based on circumstantial evidence and a variety of editing techniques used by the Census Bureau to improve the counts. For example, the census respondent may say there are five people living in the household, but they only put information on the census form for four people. If, after repeated attempts, census enumerators are unable to get additional information from the household, they will impute information for the fifth person based largely on other information on the form or on information from similar households in the neighborhood.

Figure 2. Net Undercount Rate from Demographic Analysis by Single Year of Age in the 2000 Census: Age 0 to 17



A minus sign indicates a net overcount. Source: Antonio Bruce, Arjun Adlakha, Peter Johnson, and J. Gregory Robinson, 2002, "U.S. Historical Profile of Demographic Analysis and Population Estimates: Components Across Time (1935 to 2000)," Population Association of America, Conference Poster Session.

In the 2000 census, children were much more likely than adults to be imputed. While 39 percent of the imputed population was under age 18, children make up only about 26 percent of the population.[6] Understandably, the quality of the data based on imputation is not nearly as good as that obtained directly from a respondent.

Table 2. Age Allocation/Imputation for Children in the 2000 Census, by Single Year of Age

Age	Total	Not Allocated	Allocated	Percent Allocated
Total	**72,122,304**	**69,845,956**	**2,276,348**	**3.2**
0	3,790,081	3,673,283	116,798	3.1
1	3,794,455	3,668,595	125,860	3.3
2	3,755,377	3,617,577	137,800	3.7
3	3,797,275	3,654,564	142,711	3.8
4	3,908,977	3,766,821	142,156	3.6
5	3,973,062	3,829,737	143,325	3.6
6	4,010,577	3,876,485	134,092	3.3
7	4,121,094	3,981,069	140,025	3.4
8	4,205,618	4,064,548	141,070	3.4
9	4,311,480	4,174,831	136,649	3.2
10	4,283,020	4,154,347	128,673	3
11	4,102,490	3,983,119	119,371	2.9
12	4,090,000	3,969,865	120,135	2.9
13	4,032,410	3,917,953	114,457	2.8
14	4,077,971	3,964,091	113,880	2.8
15	3,973,931	3,863,453	110,478	2.8
16	3,926,534	3,821,861	104,673	2.7
17	3,967,952	3,863,757	104,195	2.6

Source: Population Reference Bureau analysis of the 2000 Census 5-Percent PUMS.

If the Census Bureau was over-imputing children age 10 to 17, and under-imputing younger children, particularly those under age 5, this might explain, in part, the net undercount of young children and the net overcount of teenagers. But Table 2 shows that it is actually the youngest children that have the highest allocation/imputation rates. It is worth noting that a similar pattern was observed in the 1990 census when imputation was not nearly as prevalent. So imputation patterns do not explain the undercount-overcount difference between children under age 10 and those over age 10.

Who Is Missed?

Who are these overlooked children? After reviewing the available literature, it seems there are no estimates for the undercount rates of Hispanic, American Indian, or Asian children from the 2000 census. However, there are estimates for black and non-black children, and these show young black children are much more likely to be missed (see Table 3). The net undercount rate for black males under age 5 was 5.3 percent, compared to 3.3 percent for non-black males in this age group. Among black females, the net undercount rate under age 5 was 5.4 percent, compared to 3.8 percent for non-black females in this age group.

Table 3. Net Undercounts (and Overcounts*) by Percent of Total by Race, Age and Gender for Children in 1990 and 2000

	1990	2000
Black male		
Age 0 - 4	7.8	5.3
Age 5 - 9	6.9	1.4
Age 10 - 14	3.4	(1.5)
Age 15 - 19	(0.2)	(1.7)
Non-Black male		
Age 0 - 4	2.9	3.3
Age 5 - 9	2	1.1
Age 10 - 14	(0.7)	(1.6)
Age 15 - 19	(1.8)	(2.6)
Black female		
Age 0 - 4	7.4	5.4
Age 5 - 9	6.7	1.9
Age 10 - 14	3.4	(1.2)
Age 15 - 19	0.3	(1.8)
Non-Black female		
Age 0 - 4	3	3.8
Age 5 - 9	2.2	1.5
Age 10 - 14	(0.7)	(2.9)
Age 15 - 19	(2)	(2)

Source: J. Gregory Robinson, Arjun Adlakha, and Kirsten West, 2002, Appendix Table 2, "Coverage of Population in Census 2000: Results from Demographic Analysis," Paper presented at Population Association of America Conference.

Data from the 1990 census shows that undercounted children are disproportionately black, American Indian, and Hispanic, and all the evidence suggests they are likely to be poor. Table 4 shows 1990 census undercount rates for children and the total population for major racial groups and Hispanics. In every group (except Hispanics), children were missed more often than adults. Hispanic children were missed at the same rate as Hispanic adults. And children in minority groups were missed more often than non-Hispanic white children. The undercount rate for black and Hispanic children was two-to-three times that of non-Hispanic white children. American Indian children on reservations were missed more often than any other racial/ethnic group.

Table 4. Net Undercount of Children (Age 0-17) and Total Population by Percent of Total in the 1990 Census by Race/Ethnicity

Total	Children	Total Population
Non-Hispanic	3.2	1.6
White / Others	2	0.7
Black	7	4.4
Asian and Pacific Islander	3.2	2.3
American Indians on Reservations	13.8*	12.2**
Hispanic	5.0	5.0

Source: Other than the two exceptions noted below, these figures came from J. Gregory Robinson, Bashir Ahmed, and Edward W. Fernandez, 1993, Table 3, "Demographic Analysis as an Expanded Program for Early Coverage Evaluation of the 2000 Census," Paper presented at the Annual Research Conference, March 21 - 24, Arlington VA. Kirsten K. West, J. Gregory Robinson, and Alfredo Navarro, 1998, "What Do We Know About the Undercount of Children?" Paper presented at the Southern Demographic Association Annual Meeting, October 29 - 31, Annapolis, MD.** Howard Hogan and Gregg Robinson, 1993, Table 3, "What the Census Bureau's Coverage Evaluation Programs Tell Us about Differential Undercount," Paper presented at the Research Conference on Undercounted Ethnic Populations, May 5 - 7, Richmond, VA.*

Why Are Children Missed?

There is neither a simple explanation nor any consensus on why young children are missed so often in the census. But there are a couple of theories about why children might be missed that are worth exploring.

The first has to do with the way the data are collected. On the census form that was used in the 2000 census, there is only room for complete demographic information on the first six people in the household and room for the names of for the 7th through the 12th person.[7] The Census Bureau had to follow up with these household to get complete information for these people as well as information for others if more than 12 people lived in the household. In this context, it is important to note that respondents typically fill in entries from the oldest to the youngest person in the household. The Census Bureau concludes that "...children are generally listed after adults on questionnaires filled out by respondents."[8] Consequently, because the form only includes room for complete information on the first six people, any problems experienced in follow up are likely to impact children disproportionately.

It is not difficult to believe that some people, especially respondents in large and/or complex households, may stop filling out the census form before they have listed everyone in the household. For example, the respondent may get interrupted and forget they didn't complete the form, or they may simply get tired of filling out the form and just send it in with whatever data have already been entered on the form. Or they may see there is only room for demographic information for six people, and just stop entering information after the first six people despite Census Bureau instructions. To the extent people stop before they complete the form, children are the group most likely to get left off. However, it is worth noting that even when census data were collected by an in-person enumerator (prior to 1970, this is the way census data were gathered) there was still a significant undercount of young children. One study shows a net undercount of roughly 4 percent for white children age 0–4 and 10 percent for non-white children in this age range in the 1950 census and net undercounts of children about double these rates in the 1940 census.[9]

The second hypothesis about why children are missed has to do with the type of households where young children live. It is generally believed that being missed is more apt to happen among people living in large and complex households or those living in temporary or unusual living arrangements.

Young children live disproportionately in households with characteristics that put them in the hard-to-count (HTC) category. The Census Bureau has identified 12 characteristics that are linked to low mail response rates and the likelihood of being missed in the census. These characteristics are combined into an overall HTC index that can be used to identify HTC neighborhoods.

Table 5. Percent of Children, Adults, and Elderly Living in Hard-to-Count Areas* in 2000

	Age 0 – 17	Age 18 – 64	Age 65+
U.S. Totals	20	18	14

Source: Author's analysis of the Census Bureau's Planning Data Base.
**In this analysis, hard-to-count (HTC) areas are defined as those with HTC scores of 60+.*

Children are about 50 percent more likely than the elderly to be living in HTC areas. Table 5 shows that about 20 percent of children live in HTC areas compared to 18 percent of working-age adults and 14 percent of elderly. And the pattern is pervasive. Table 6 presents the data state by state. In only six states (Alaska, Hawaii, Maine, South Carolina, Vermont, and West Virginia), the elderly are more concentrated in HTC tracts than children. And in just two of these states (Alaska and Hawaii), is the difference more than one percentage point.

Young children are more than three times as likely as adults to be living in large (7+ persons) households. More than 8.4 percent of children live in such large households, compared to less than 2.6 percent of adults.[10]

Young children are more likely to live in more mobile families, who are often more difficult to count. Data show 21 percent of children under age 5 moved in the last year compared to 16 percent of the total population.[11]

Young children are more likely to live in rental units. Data show 42 percent of households with children under age 6 live in rental units, compared to only 32 percent of households that do not have a child under age 6 in the housing unit.[12]

Younger children are more likely than teenagers to live in more complex families. For example, more than two-thirds (69 percent) of children under age 1 live in a household with an adult other than a parent, compared to only 32 percent of children age 12 to 17.[13]

To some extent the high undercount of children reflects the uncertain living arrangements of many children. There is clear evidence that marginal attachment to a household reduces the likelihood of being counted.[14]

For children living in temporary arrangements like foster care, or living with relatives other than their parents, it may not be clear if the home where they are staying

Table 6. Percent of Children, Adults, and Elderly Living in Hard-to-Count Areas* by State

State	Age 0 – 17	Age 18 – 64	Age 65+
Alabama	12	11	11
Alaska	25	23	27
Arizona	32	28	17
Arkansas	15	14	12
California	35	30	23
Colorado	11	11	10
Connecticut	17	15	11
Delaware	7	8	6
District of Columbia	69	51	46
Florida	21	19	13
Georgia	16	15	15
Hawaii	22	24	25
Idaho	6	8	6
Illinois	22	19	14
Indiana	10	10	8
Iowa	4	5	3
Kansas	10	10	6
Kentucky	9	9	8
Louisiana	21	19	19
Maine	3	5	4
Maryland	11	11	9
Massachusetts	17	16	12
Michigan	14	12	9
Minnesota	7	7	5
Mississippi	20	18	18
Missouri	11	11	9
Montana	9	8	5
Nebraska	8	9	6
Nevada	26	26	23
New Hampshire	4	5	4
New Jersey	21	19	14
New Mexico	38	34	29
New York	33	29	23
North Carolina	10	10	9
North Dakota	4	4	3
Ohio	12	11	8
Oklahoma	16	16	13
Oregon	12	13	9
Pennsylvania	11	10	7
Rhode Island	28	24	18
South Carolina	9	10	10
South Dakota	12	10	5
Tennessee	12	11	10
Texas	29	27	24
Utah	8	13	8
Vermont	3	4	4
Virginia	8	8	7
Washington	14	15	12
West Virginia	4	6	5
Wisconsin	10	9	5
Wyoming	2	3	2

Source: Author's analysis of the Census Bureau's Planning Data Base.
**In this analysis, hard-to-count (HTC) areas are defined as those with HTC Scores of 60+.*

on April 1, 2010 (census day) is their "usual place of residence." More than 4 million children lived with neither parent in 2007. But for some groups, the rates are even higher. For example, among black children, 9 percent did not live with either parent in 2007.

The 2007 ACS shows nearly 5 million children living with their grandparents.[15] Almost half of these children (2.2 million out of 4.7 million) are under age 6. Despite Census Bureau instructions, it is not difficult to imagine a grandparent thinking the child really should be listed in his or her parent's household.

The most rapidly growing type of living arrangement for children is cohabitation.[16] Since these living arrangements are relatively unstable (compared to married-couple families) and the relationships among adults and children are not typical of a nuclear family, it would not be surprising if some children are not being reported in these types of living arrangements. The 2007 ACS shows 4.5 million children living in cohabiting households.[17]

The undercount of children also may be related to the distinction between families and households. Although the Census Bureau asks respondents for the number of people in the household, respondents may only be thinking about the number of people in their family. This can be a problem when people outside the nuclear family live in a household or when multiple families share the same housing unit.

Prospects for 2010

As we look forward to the 2010 Decennial Census, some changes suggest the count of children will be better while other trends suggest it will be more difficult to count children accurately in 2010.

The 2000 Census included a short form – with only a few questions – and a longer form that included a broader set of questions on socioeconomic characteristics that went to one in every six households. Research from the 2000 census indicates that people are more likely to complete and return a short form rather than a longer form. In the 2000 census, there was an 80 percent mail return rate for the short form, compared to 71 percent for the long form.[18] Since the 2010 census will be a "short form only" census – meaning there will be only five demographic questions, one housing question, and a couple of administrative questions – this should help increase the overall response rate compared to the 2000 census.

On the other hand, data from the American Community Survey (ACS) over the past several years indicate that the mail response rate for that Census Bureau survey has declined by about four percentage points since 2000. The final mail response rate of the ACS went from 59.7 percent in 2000 to 55.3 percent in 2007.[19] This is consistent with other evidence that shows lower cooperation with surveys across the board. In part, this reflects growing public concerns about privacy, confidentiality, and identity theft, as well as increasing time pressures, and these factors are likely to negatively affect the 2010 census return rate as well.

The Census Bureau has made several changes to census forms and procedures in an effort to get a more accurate count of young children in the 2010 census. For example, the instructions preceding the first question on the 2010 form now reads, "Count all people, including babies, who live and sleep here most of the time." There was no such instruction on the 2000 census form.

In another change to the form, wording was added to the instructions for the age/Date of Birth question so that it now reads, "Please report babies as age 0 when the child is less than 1 year old."

In addition, a new administrative question on the 2010 Census form asks:

Were there any additional people staying here April 1, 2010 that you did not include in Question 1?
Mark [X] all that apply.

[ ] Children, such as newborn babies or foster children
[ ] Relatives, such as adult children, cousins, or in-laws
[ ] Nonrelatives, such as roommates or live-in baby sitters
[ ] People staying here temporarily
[ ] No additional people

Census Bureau staff hoped that this prompt might remind respondents to include some children who might have been overlooked before. However, research conducted by the Census Bureau suggests that following up with households that marked the "Children, such as newborn babies or foster children" box did very little to improve the count.[20]

While there is only room on the 2010 census form to provide complete demographic information for six people, the form asks for the name, sex, date of birth, and if the

person is related to the householder, for up to six more people. In the 2000 form, it only asked for name of individuals in this group. Including the date of birth will allow the Census Bureau to accurately provide the age of each of these people even if they are unable to get more complete information. Since people listed after the 6th person are more likely to be children, this may help get a better count for that population.

Another new administrative question asks:

Does Person 1 sometimes live or stay somewhere else? [ ] No [ ] Yes — *Mark [X] all that apply.*

[ ] In college housing
[ ] In the military
[ ] At a seasonal or second residence
[ ] For child custody
[ ] In jail or prison
[ ] In a nursing home
[ ] For another reason

Although Census Bureau tests found that following up with respondents who marked "For child custody" did little to reduce the undercount of children.[21]

In another effort to increase response rates for the 2010 census, the Census Bureau will be mailing about 14 million bilingual questionnaires to neighborhoods it identified as ones where there are large numbers of Spanish-speaking residents. This may have a disproportionately positive effect on the count of children because Hispanic households tend to have more children than non-Hispanic households. Also, these bilingual questionnaires have room for complete demographic data on eight people.

One of the major efforts to reach households with children is the Census in Schools program, which will be expanded in 2010 relative to 2000 (see Table 7). While this program is focused on households with school-age children (not preschoolers where the undercount is the highest) it is important to recognize that 20 percent of households with a preschooler (under age 5) also have a school-age child (5 – 17) in the household.

Despite these efforts by the Census Bureau, a number of trends suggest that an accurate count of children is likely to be more difficult in 2010 than it was in 2000, unless special efforts are made. Some of these trends, and their connection to the undercount, are presented and discussed below.

Table 7. Comparison of Census in Schools Programs in 2000 and 2010 Censuses

Program Components	2000	2010
K – 8	√	√
9 – 12		√
HeadStart	On request	
Direct Mail Distribution	√	√
Online Promotion*		√
Online Distribution		√
Puerto Rico / Island Areas, K – 8	√	√
Puerto Rico / Island Areas, 9 – 12		√
Take-Home Materials Translated into 28 Languages		√
English as a Second Language (ESL)		√
Teaching Materials in Print and Electronic Form		√
Parent Take Home Reach	1.6 million teachers	27.2 million families

*Principal and Assistant Principal e-mail marketing campaign totaling 50,000 impressions; Four e-mail waves to educators totaling 44 million impressions; Flash header and banner ads totaling 2.2 million impressions

Source: E-mail sent by Steve Jost, U.S. Census Bureau September 2009.

Demographic Shifts

A persistent pattern over several censuses shows racial and Hispanic minorities are more likely to be missed than non-Hispanic whites. And demographic trends are clear – the shares of children from minority racial or ethnic groups are growing rapidly. Table 8 shows how the percentage of each age group has changed since 2000 and indicates that minority populations are growing rapidly among the youngest population. Nearly half (47 percent) of children under age 5 are racial or Hispanic minorities, compared to 34 percent of the total population. And the share of children age 0 to 4 that are from a racial or Hispanic minority group rose from 41 percent in 2000 to 47 percent in 2008.

Table 8. Changing Minority Population of Children: 2000 and 2008

Percent Minority* in Each Age Group	July 1st 2008 Estimate	2000 Census
Total All Ages	34	31
Under 5 years	47	41
5 to 9 years	44	40
10 to 14 years	42	37
15 to 19 years	40	37
Total 0 – 19	43	39

*Anyone other than non-Hispanic white.

Source: U.S. Census Bureau, 2008 Population Estimates, available online at www.census.gov/popest/national/asrh/NC-EST2008-srh.html.

One of the reasons for the shift identified above is the increased immigration experienced by the United States in recent years. The number of immigrant children (those with at least one parent born outside the United States) increased from 13.8 million in 2000 to 16.5 million in 2007. And more children live in families with one or more undocumented immigrants. Nearly half (47 percent) of unauthorized-immigrant households are couples with children. According to the Pew Hispanic Center, the number of children with at least one unauthorized-immigrant parent increased from 3.9 million in 2003 to 5.5 million in 2008.[22] And more than 9 million children live in "mixed-status" households where at least one person in the household has a different legal status than the other. This situation is more prevalent for younger children. Sixteen percent of children under age 6 live in mixed-status families, compared to 11 percent of children age 6 to 17.[23]

People who do not speak English well are more likely to have problems with census forms and the trend since 2000 indicates there are growing numbers of people living in households where people speak a language other than English at home. In 2000, there were 44.5 million people over age 5 living in homes where they spoke a language other than English; but by 2007, the number had risen to 55.5 million.[24] The extensive use of targeted bilingual questionnaires in the 2010 census should help address this issue to some extent.

Table 9 shows changes in selected groups of young children (age 0 – 4) who are likely to fall into the hard-to-count category. There are large numbers of preschoolers in these vulnerable categories. And in most cases, their numbers have increased significantly since 2000.

Table 9. Trends in Selected Measures of Vulnerable Children Ages 0 – 4, 2000 to 2007

			Change from 2000 to 2007	
	2007 (in 1000s)	2000 (in 1000s)	Number (in 1000s)	Percent
Children in Care of Grandparents	1,139	1,036	103	10
Children Living in Cohabiting Households	1,831	1,347	484	36
Children Living with Neither Parent	898	879	19	2
Children Living in Crowded Housing	3,135	3,279	-144	-4
Children in Immigrant Families	4,932	3,676	1,256	34

Source: Population Reference Bureau's analysis of the 2000 and 2007 American Community Survey Public-Use Microdata Sample.

The number of young children living in cohabiting couples and the number in immigrant families have both increased by more than a third since 2000. While the number of preschoolers living in crowded housing fell slightly between 2000 and 2007, one has to wonder if the current housing crisis will reverse that trend.

It is estimated that 2 million children will be directly impacted by the housing crisis and their families will lose their homes.[25] Evidence clearly indicates the housing crisis is concentrated in minority neighborhoods, and these neighborhoods have often been undercounted in past censuses.[26] The housing crisis is likely to lead to more families doubling up or living in uncertain or temporary situations. Because the census attempts to tabulate people at their "usual place of residence," the more people who do not have a usual place of residence due to the housing crisis, the less clear the census numbers will be.

What Can Be Done?

Given the high net undercount of young children in past censuses, one must ask what can be done to get a more complete count of children in the 2010 Census. How can we reach the parents of these young children and motivate them to complete census forms and include all the children in their household?

Child advocacy groups, nonprofit organizations and others interested in getting a complete count of children in the 2010 Census can join with the Census Bureau in this effort. Organizations can partner with the Census Bureau to deliver the message that the census is easy, important, and safe.[27] Child advocates can also join the Census

Complete Count Committees that exist in most states and large cities and push for more of an effort to make sure households with young children are included in census promotional efforts.[28]

There are several avenues that groups can use to reach parents of young children. Some of these are outlined below:

» ***Women, Infants, and Children (WIC)*** The federal government could use the participant rolls of the WIC program to reach families with young children in the households.[29] Organizations could send a flyer to all participants to remind them of the importance of making sure all their children are counted. More than 8.2 million people get WIC benefits each month.

» ***Head Start*** Information could be sent to families with children enrolled in Head Start programs. Head Start was included in the Census in Schools program in the 2000 census on a voluntary basis and it received positive evaluations.[30] However, so far it has not been formally included in the 2010 census plans. In 2007, there were over 900,000 children enrolled in Head Start and they are disproportionately from low-income and minority families.[31]

» ***Child care facilities*** Most states and large cities have a list of authorized child care locations. These lists could be used to provide information on the importance of making sure children are included in the census. Census Bureau data from 2006 indicate more than 4 million children under age 5 were in organized child care facilities around the country. The National Association of Child Care Resource and Referral Agencies may be helpful in locating child care facilities. [32]

» ***American Hospital Association*** Organizations could work with the American Hospital Association's 6,000 members to provide a notice to all women who have a birth in January, February, or March of 2010, to make sure they record their new child in the census.[33] There will be about 1 million children born in the first quarter of next year.

» ***American Academy of Pediatricians*** The American Academy of Pediatricians has 60,000 members nationwide and pediatrician offices are a place parents with young children go on a regular basis.[34] Organizations could develop and send out materials to put in the offices of pediatricians and/or give to parents on visits, stressing the importance of the census.

Currently, the Census Bureau is partnering with the American Academy of Family Physicians and Planned Parenthood on a national level. On a regional level, it has partnerships with some Head Start programs, WIC programs, Children's Special Health Care Services, and selected health departments and hospitals. However, much more can be done. At the local level, the more organizations such as Complete Count Committees, and Census Bureau partners can get informational materials to organizations and offices that reach households with young children, the more likely preschoolers are to be included in the census count.

Implications

When children are not counted accurately we don't get a true picture of our nation, and communities don't get their rightful share of public funds or political power. A recent analysis by Census Bureau staff identified more than 140 federal programs that use Census Bureau data in the distribution of funds.[35] Collectively, these programs distributed more than $400 billion in fiscal year 2007. Table 10 shows many of these programs are focused on children, including Temporary Assistance for Needy Families ($16.5 billion), Title 1 Grants for Education ($12.8 billion), Title IV-E Foster Care ($4.7 billion), WIC ($5.5 billion), Special Education ($10.8 billion), and the Child Care & Development Block Grant ($2.9 billion). For low-income communities these programs translate into schools, clinics, child care centers, and other vital facilities that can make life better for children. Opportunities for children are diminished when communities do not get their fair share of these resources because their population was undercounted in the census.

In addition, when children are missed in the census, school planners are confronted with more children than they expect, resulting in increased class size and overcrowded schools. One analysis showed the number of children missed in New York City in the 1990 census (77,000) is equivalent to the number of children in 150 average-sized elementary and secondary schools.[36] Another analysis shows how the estimate of children in poverty is affected by the undercount of children in the Decennial Census.[37]

The Census Bureau's undercount of children also impinges on private sector decisions. For example, inaccurate data may lead private foundations and nonprofit organizations to make mistaken decisions about where to focus resources or may lead the private sector to miss business opportunities.

Table 10. Selected Programs Using Census Bureau Data for Distribution of Funds: FY 2007

Code of Federal Domestic Assistance Number	Program Name	Department or Agency	FY 2007 Obligation in Billions
93.778	Medical Assistance Program (Medicaid)	Health and Human Services	$203.5
93.558	Temporary Assistance for Needy Families	Health and Human Services	$16.5
84.01	Title I Grants to Local Education Agencies	Education	$12.8
84.027	Special Education Grants to States	Education	$10.8
10.555	National School Lunch Program	Agriculture	$7.8
93.6	Head Start	Health and Human Services	$6.9
93.767	State Children's Health Insurance Program	Health and Human Services	$5.9
10.557	Special Supplemental Nutrition Program for Women, Infants and Children	Agriculture	$5.5
93.658	Foster Care Title IV-E	Health and Human Services	$4.7
93.596	Child Care Mandatory and Matching Funds of the Child Care and Development Fund	Health and Human Services	$2.9
84.367	Improving Teacher Quality State Grants	Education	$2.9

Source: Lisa M. Blumerman and Phillip M. Vidal, 2009, "Uses of Population and Income Statistics in Federal Funds Distribution – With a Focus on Census Bureau Data," Government Divisions Report Series, Research Report #2009-1, U.S. Census Bureau, Washington, DC.

Conclusions

The net undercount of young children in the census is not a new problem. However, the 2010 census offers a chance to improve on the past and make sure the youngest members of our society are fully counted. Moreover, the activities of the Census Bureau, child advocates, state and local governments, and non-governmental organizations over the next few months will have implications that last a decade in terms opportunities for our most vulnerable children.

Unlike many other groups that may be undercounted in the census, young children have no voice in this process. They are totally dependent on the rest of us to make sure they are counted accurately. Yet, they will be the ones to suffer the consequences if their community does not get the resources it deserves for schools, clinics, or child care centers.

As we move toward the April 1, 2010, census date, obtaining a complete and accurate picture of America's children should be given the highest priority. We cannot afford to miss large numbers of our youngest citizens in the 2010 census.

Endnotes

[1] Among the few reports on the undercount of children see: West, Kirsten K., and J. Gregory Robinson, 1999, What Do We Know about the Undercount of Children? U.S. Census Bureau, Population Division Working Paper No. 39, August. Available at www.census.gov/population/www/documentation/twps0039/twps0039.html; O'Hare, William, 1999, The Overlooked Undercount: Children Missed in the Decennial Census, The Annie E. Casey Foundation, Baltimore, MD. Available at http://caseyconnectionv2.aecf.org/C14/Reports/Document%20Library/overlooked%20undercount.pdf Lowenthal, Terri Ann, 2005, Counting Children in Census 2000: Results and Challenges – KIDS COUNT/PRB Report on Census 2000, The Annie E. Casey Foundation and Population Reference Bureau. Available at www.aecf.org/upload/publicationfiles/da3622h1237.pdf.

[2] Coale, Ansley J., 1955, "The Population of the United States in 1950 Classified by Age, Sex and Color – A Revision of Census Figures," Journal of the American Statistical Association, 50:16 – 54; and Coale, Ansley J., and Norfleet W. Rives, 1973, "A Statistical Reconstruction of the Black Population of the United States, 1880 – 1970: Estimates of True Numbers by Age and Sex, Birth Rates and Total Fertility," Population Index, 39:3 – 36.

[3] Robinson, J. Gregory, Bashir Ahmed, and Edward W. Fernandez, 1993, "Demographic Analysis as an Expanded Program for early Coverage Evaluation of the 2000 Census," Table 3, Paper presented at the Annual Research Conference, March 21 – 24, Arlington, VA.

[4] U.S. Census Bureau, DSSD Memorandum ACE Revision II, Memorandum Series #PP-41.

[5] National Research Council, 2004, The 2000 Census: Counting Under Adversity, Panel to Review the 2000 Census, Constance F. Citro, Daniel L Cork, and Janet L. Norwood, eds., Committee on National Statistics, Division of Behavioral and Social Science and Education, The National Academies Press, Washington, DC: 253.

[6] Wetrogan, Signe I., and Arthur R. Crease, 2001, ESCAP II, Characteristics of Imputations, Report No. 22, U.S. Census Bureau, Washington, DC.

[7] On the census form that will be mailed out in 2010, there is room for complete demographic information on the first six people in the household and there is room for limited information (name, sex, date of birth, and if this person is related to the householder) for the 7th through the 12th person

[8] Wetrogan, Signe I., and Arthur R. Crease, 2001, ESCAP II, Characteristics of Imputations, Report No. 22, U.S. Census Bureau, Washington, DC: iii.

[9] Coale, Ansley J., 1955, "The Population of the United States in 1950 Classified by Age, Sex and Color – a Revision of Census Figures," Journal of the American Statistical Association, 50:16 – 54, Table 2.

[10] U.S. Census Bureau, 2007 American Community Survey, extracted from Public Use Microdata Sample using FARRETT.

[11] U.S. Census Bureau, 2007 American Community Survey, Factfinder, Table 07001C.

[12] U.S. Census Bureau, 2007 American Community Survey, Factfinder, Table B25012.

[13] Kreider, Rose M., and Diana B. Elliot, 2009, "The Complex Living Arrangements of Children and Their Unmarried Parents," Poster Presentation for the Population Association of America's Annual Meeting, Detroit, MI, May.

[14] Martin, Elizabeth, 2007, "Strength of Attachment: Survey Coverage of People with Tenuous Ties to Residences," DEMOGRAPHY, Vol. 44, Number 2:437 – 440; Martin, Elizabeth, 2008, "Who Knows Who Lives Here Within Households Disagreement as a Source of Survey Coverage Error," Public Opinion Quarterly.

[15] U.S. Census Bureau, 2007 American Community Survey, Factfinder, Table B10001.

[16] O'Hare, William, Wendy Manning, Meredith Porter, and Heidi Lyons, 2009, "Rural Children Are More Likely to Live in Cohabiting – Couple Households," Policy Brief, No. 14, Summer, The Carsey Institute, University of New Hampshire.

[17] U.S. Census Bureau, 2007 American Community Survey, Factfinder, Table B09008.

[18] The mail return rate is the number of returned forms divided by the number of occupied household units that got the form. This is different from the mail response rate, which is the number of returned forms divided by the number of questionnaires sent out. For mail response rates, see www.census.gov/pred/www/rpts/A.7.b.pdf.

[19] Whitford, David C., 2009, 2008 American Community Survey Variance Memorandum Series #ACS-V-01, Table 1, U.S. Bureau of the Census.

[20] 5 U.S. Census Bureau, 2007, 2005 National Census Test: Coverage Analysis, Decennial Statistical Studies Division, DSSD Memorandum Series E-13.

[21] U.S. Census Bureau, 2007, 2005 National Census Test: Coverage Analysis, Decennial Statistical Studies Division, DSSD Memorandum Series E-13.

[22] Passel, Jeffrey S., and D'Vera Cohn, 2009, A Portrait of Unauthorized Immigrants in the United States, Pew Hispanic Center, Washington, DC, April.

[23] Capps, Randy, Michael Fix, Jason Sot, Jane Reardon-Anderson, and Jeffrey S. Passel, 2004, The Health and Well-Being of Young Children of Immigrants, The Urban Institute, Washington, DC:6.

[24] 2000 Census Supplementary Survey, Table P0234, and 2007 ACS Table B06007, Obtained from Census Factfinder.

[25] Lovell Phillip and Julia Isaacs, 2008, The Impact of the Mortgage Crisis and Children, First Focus, Washington, DC. Available at www.firstfocus.net/Download/HousingandChildrenFINAL.pdf.

[26] Kingsley, G. Thomas, Robin Smith, and David Price, 2009, The Impacts of Foreclosures on Families and Communities, The Urban Institute, Washington, DC. Available at www.urban.org/publications/901256.html; Powell, Michael, and Janet Roberts, 2009, "Minorities Affected Most as New York Foreclosures Rise," The New York Times, May 15. Available at www.nytimes.com/2009/05/16/nyregion/16foreclose.html?pagewanted=1&_r=2&ref-us.

[27] To find out more about the Census Bureau's partnership program, go to http://2010.census.gov/partners/partners

[28] To find out more about the Census Bureau's Complete Count Committees, go to http://2010.census.gov/partners/national-complete-count-committee.

[29] For more information about the WIC program, see www.fns.usda.gov/wic.

[30] U.S. Census Bureau, 1999, The Census Goes to School: A Guide for Educators and Community Leaders, D-3242, October 27.

[31] For more information about Head Start enrollment, see www.acf.hhs.gov/programs/ohs/about/fy2008.html.

[32] More more information on the National Association of Child Care Resource and Referral agencies see http://www.naccrra.org/

[33] For more information, see www.aha.org/aha/resource-center/Statistics-and-Studies/fast-facts.html.

[34] For more information about the American Association of Pediatricians, see www.aap.org/about.html.

[35] Blumerman, Lisa M., and Phillip M. Vidal, 2009, Uses of Population and Income Statistics in Federal Funds Distribution–With a Focus on Census Bureau Data, Government Divisions Report Series, Research Report #2009-1, U.S. Census Bureau, Washington, DC.

[36] The size of average elementary/secondary school is 520 according to the National Center for Educational Statistics, Digest of Educational Statistics: 1996, Table 94.

[37] Daponte, Beth Osborne, and Lara J. Wolfson, 2003, How Many American Children Are Poor? Considering Census Undercount by Comparing Census to Administrative Data, H. John Heinz School of Public Policy and Management, Carnegie Mellon University, February 7.

The Annie E. Casey Foundation is a private charitable organization dedicated to helping build better futures for disadvantaged children in the United States. It was established in 1948 by Jim Casey, one of the founders of UPS, and his siblings, who named the Foundation in honor of their mother. The primary mission of the Foundation is to foster public policies, human-service reforms, and community supports that more effectively meet the needs of today's vulnerable children and families. In pursuit of this goal, the Foundation makes grants that help states, cities, and communities fashion more innovative, cost-effective responses to these needs.

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