County-level Coverage Rates of Young Children in the 2020 Census: The National-Level Data Do Not Tell the Full Story[1]

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1. Introduction

The Census Bureau release of the 2020 Census Demographic and Housing Characteristics file with detailed age data from the 2020 Census in May of 2023 allows researchers to examine coverage rates of young children at the state and county level. A report on state level coverage for young children (ages 0 to 4) was posted on the Count All Kids website in August 2023 (O'Hare 2023). This report focuses on the net coverage of young children in the 2020 Census at the county level,

Data from the Census Bureau's Demographic Analysis (DA) show a net undercount of about one million children ages 0 to 4 in the 2020 Decennial Census. The net undercount rate for the population ages 0 to 4 was 5.4 percent which is higher than any other age group (U.S. Census Bureau 2022).

Given the high nationwide net undercount rate for young children, it would be useful to have a better understanding of the geographic differences in census coverage rates for young children. Such an analysis can help isolate the factors related to high net undercounts of young children, provide an idea about which young children are most at risk, and better prepare us to attack this vexing problem in the 2030 Census.

Over the past decade there has been growing interest among researchers and

[1] This research was funded by The Annie E. Casey Foundation, but they are not responsible for the content..

Census stakeholders in the high and growing net undercount of young children (ages 0 to 4) in the U.S. Census (O'Hare 2015: U.S. Census Bureau 2022; Johnson 2022; Jensen 2022; O'Hare et al. 2019; Griffin and O'Hare 2022, Jensen and Johnson 2022; King et al. 2018; Hartley et. al. 2021). Several studies have shown that young children have had relatively high net undercount rates in the past several U.S. Decennial Censuses (West and Robinson, 1999; O'Hare, 1999; O'Hare 2009, O'Hare 2012a; O'Hare 2014a; O'Hare 2014b, O'Hare 2014c, O'Hare 2014d, O'Hare 2014e, U.S. Census Bureau 2014).

The methodology employed here (comparing the Census counts to the Census Bureau's Population Estimates) provides one of the few opportunities to generate subnational and substate accuracy data for the 2020 Census and the study responds to several analysts who have called for more subnational examination of census accuracy. Based on their analysis of 2000 Decennial Census data compared to subnational Population Estimates, Adlakha et al. (2003, page v) recommend we, "…expand the current demographic analysis to include subnational benchmarks in the 2010 Census evaluation." Mayol-Garcia and Robinson (2011) also conclude, "More studies are needed on the patterns of this population age group compared to the results of the previous censuses." The final report of the U.S. Census Bureau's Task Force on the Undercount of Young Children (U.S. Census Bureau, 2014, page ii) recommends, "This work must look below the national level to determine if certain areas, populations, or census operations were more likely to have these errors." The present analysis responds to these recommendations.

In addition, the results of the 2020 Census also spurred many groups to ask for more granular data from the Census Bureau. The American Statistical Association Task

Force on 2020 Census Quality (American Statistical Association 2021, page 4) states, “The task force concludes that the 10 process statistics it examined at the state level provide insufficient information for a summary judgment about the quality of the 2020 Census and recommends two high priority lines of research on data released later than the state-level counts: one that examines these process statistics at more detailed levels of geography and another that examines the Census Bureau’s traditional methods for assessing under-and -over counts.“

A recommendation from the U.S. Census Bureau’s National Advisory Committee (U.S. Census Bureau 2022c, page 24) states “The NAC recommends that the Bureau release census operational metrics for small sub-state areas, such as congressional districts, counties, cities, tribal areas, and Census tracts, including data on incomplete enumeration (substitution).”

In a press release from the National Association of Latino Elected And Appointed Officials (2022) related to the 2020 Census, they state, ”NALEO Educational Fund Urges Census Bureau to Release More Data on State and Local Undercounts”.

The current study responds to these requests.

After providing some background on this issue, a description of the methodology for calculating young child net undercount rates for counties is presented and data sources are identified. Then differences between 2020 Decennial Census counts and Vintage 2020 County Population Estimates for the population age 0 to 4 are explored. State and regional geographic differences are examined and variations by county size are explored. This is followed by a summary.

2. Background

The net undercount rate for the population age 0 to 4 is not only higher than any other age group, but it has also been increasing over the past several decades. Figure 1 shows the net undercount rate for young children (ages 0 to 4), older children (ages 5 to 17), and adults (ages 18 and over) from 1950 to 2020. There are a couple of key points one can draw from this figure. First, after 1980, the net undercount trajectory for young children is quite different than that of adults. The net undercount for young children rose from 1.4 percent in 1980 to 5.4 percent in 2020. During the same period, the net coverage rate for adults (age 18+) went from an undercount of 1.4 percent in 1980 to a net overcount of 0.25 percent in 2020. Second, trends in the net coverage for young children are quite different than that for older children. This underscores the importance of examining undercounts of the population age 0 to 4 in more detail. In the 2020 Census, the net undercount rate for ages 0 to 4 is 5.4 percent which is much higher than the net undercount rate for the population ages 5 to 17 (0.9 percent).

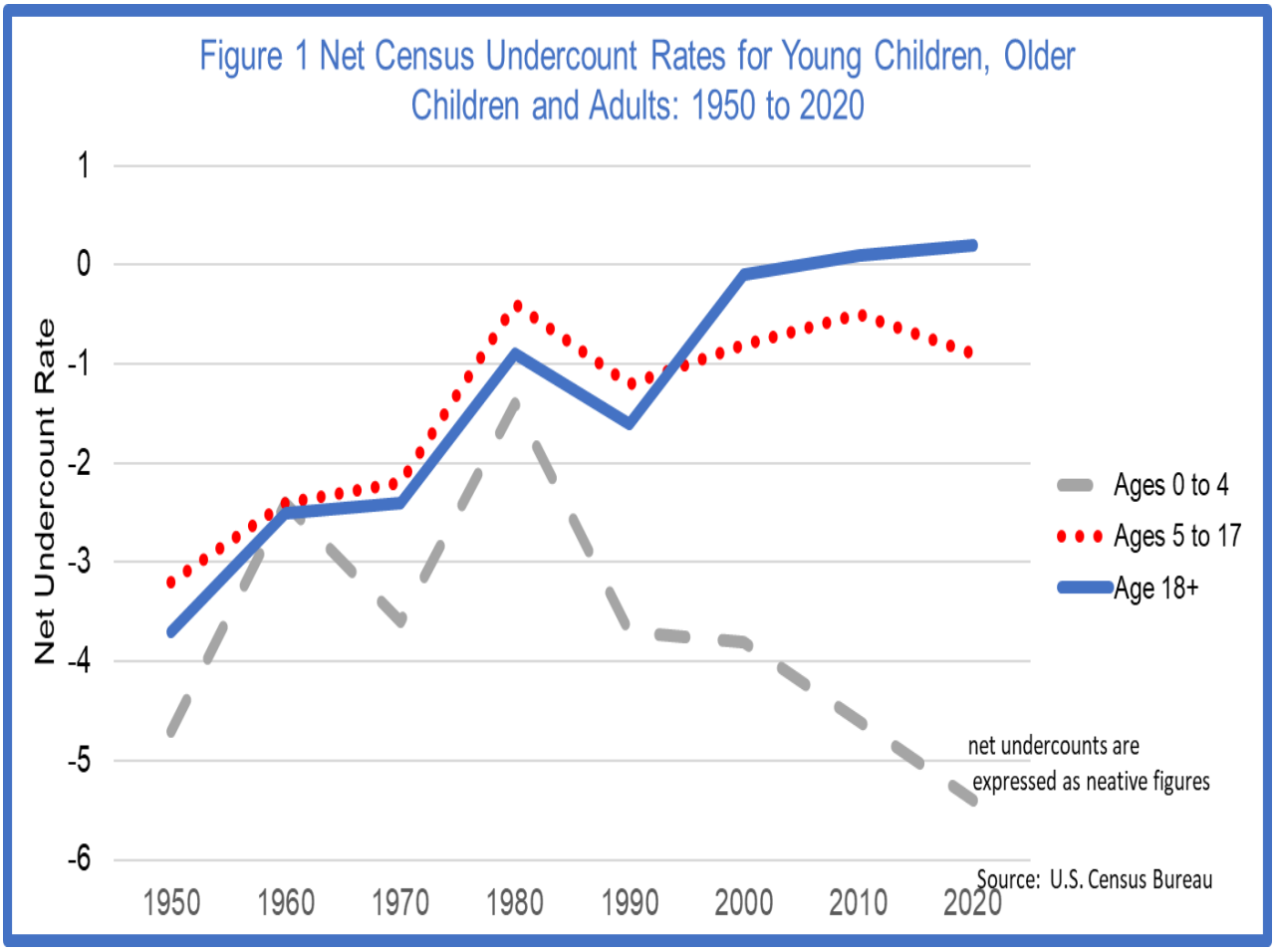
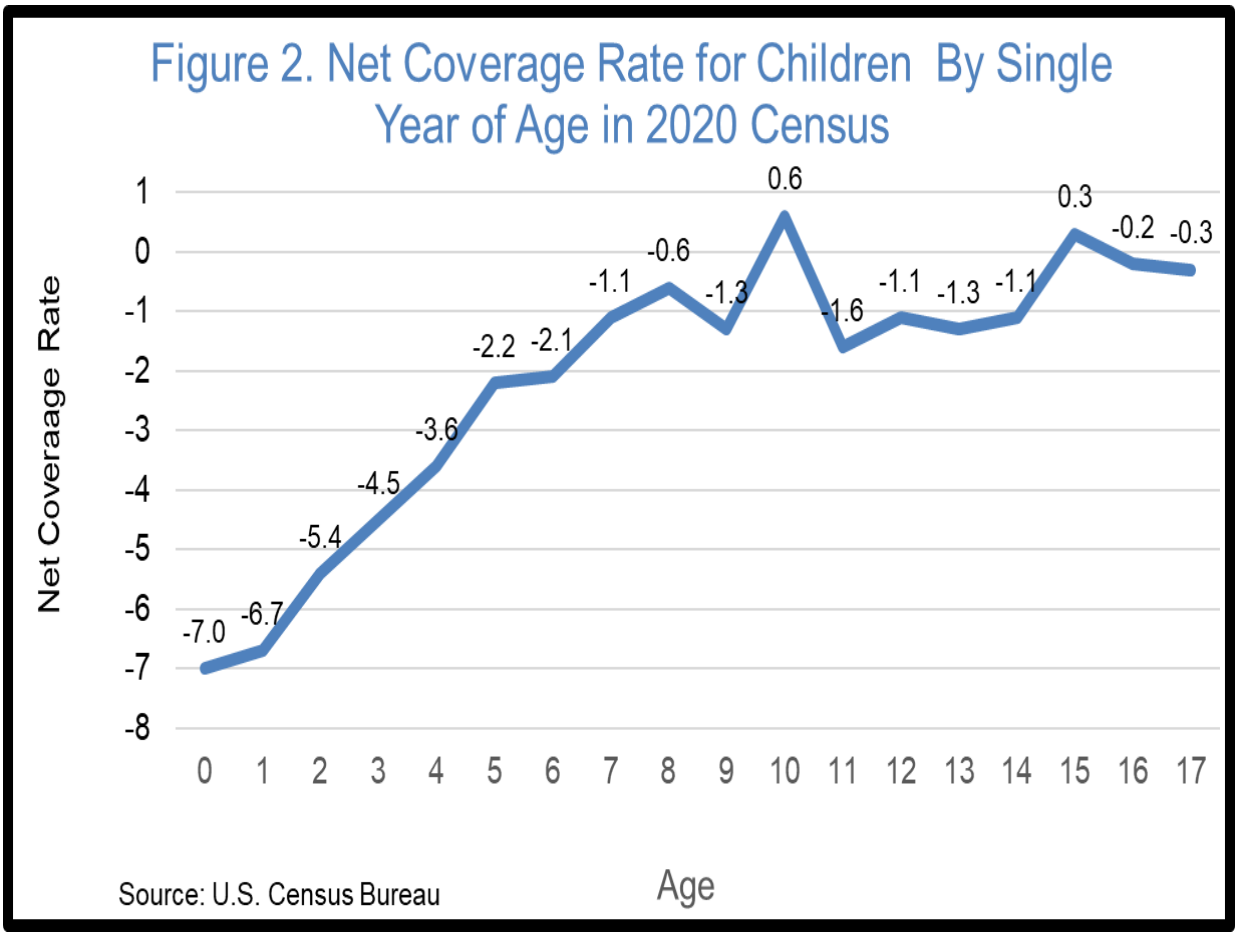
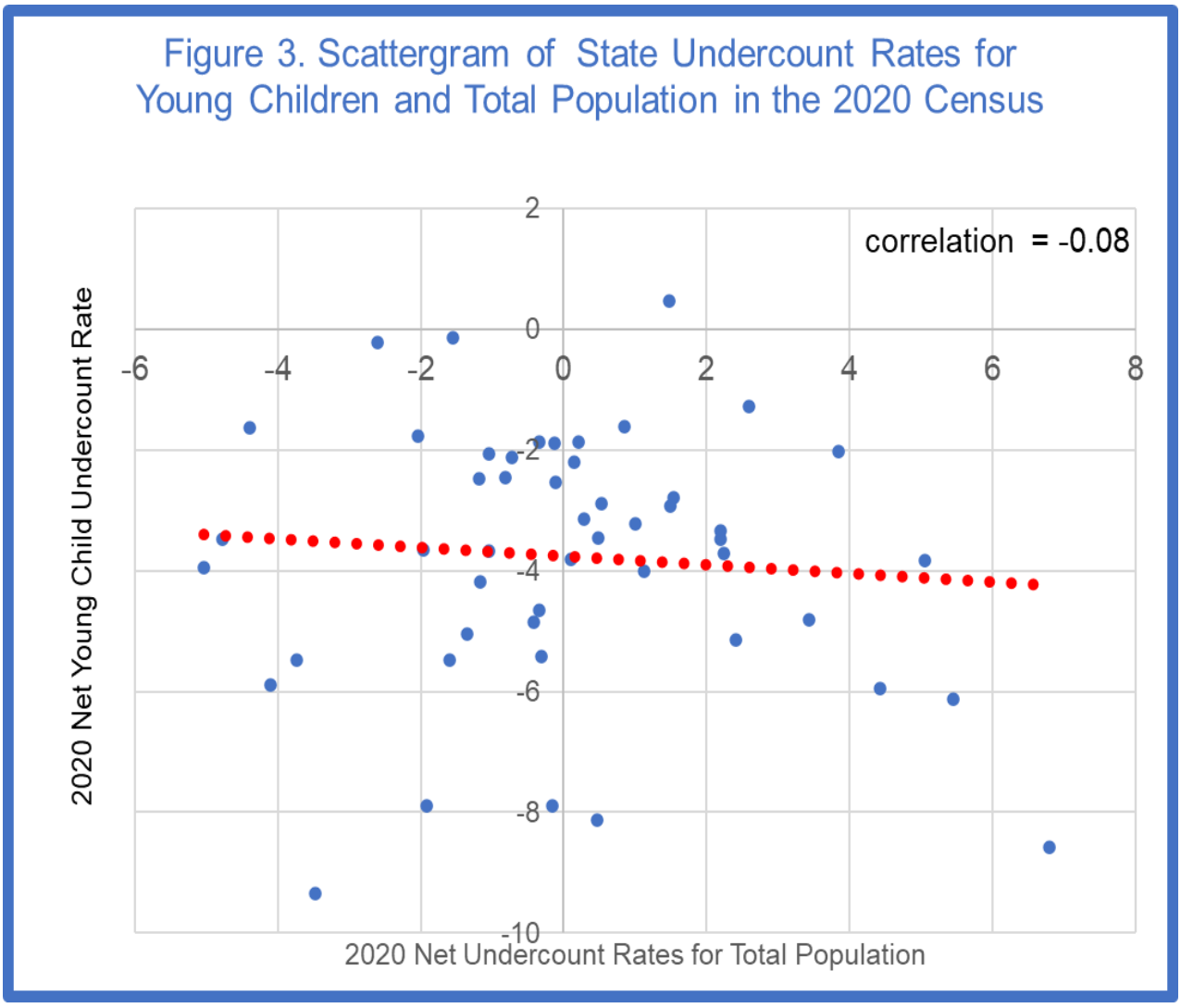


Figure 2 shows age-specific coverage rates for the population ages 0 to 17 in the 2020 Census and reflects the sharp age gradient for census coverage by age, particularly for children under age 10. The net undercount rates for ages 9,10 and 11 are impacted by substantial age heaping in the 2020 Census (U.S. Census 2023).



The census-taking situation for young children is different than for most other groups and the undercount figures for all children (population ages 0 to 17) masks the high net undercount of young children.

It is also important to note the 2020 Census coverage rate for young children in states is unrelated to the coverage rates for the total population. Figure 3 shows the correlation between the state coverage rates for the total population and coverage rates for population ages 0 to 4 is -0.08 (not statistically different from zero) which indicates the coverage of young children is independent of the coverage for the total population. This underscores the need to examine the coverage of young children separately from other age groups.



3. Methodology and Data Sources

Release of the Census Bureau's Vintage 2020 State and County Population Estimates for young children provides an opportunity to assess subnational census results using a DA-like methodology for the population ages 0 to 4. Like the DA estimates, the yearly Population Estimates are based on a simple cohort-component demographic accounting equation that starts with the number of children in this age group in each state

and county in the 2010 census and estimates subsequent years' population using the number of births, deaths, and net migration.

The DA methodology used to assess census accuracy at the national level compares the census results to an independent population estimate to ascertain undercounts and overcounts for the population. One of the major limitations of the Demographic Analysis technique for measuring the Census undercounts for most demographic groups is that it can only be applied at the national level.[2]

The DA methodological approach is well-suited for analyzing census coverage of young children. With respect to the results of the 2000 Census evaluation for the count of young children, the U.S. Census Bureau (2003, page v) states:

> *"The Demographic Analysis estimate for this age group is more accurate than those for other age groups because the estimate for young children depends primarily on recent birth registration data which are believed to be highly accurate."*

In comparing the Demographic Analysis results to Dual Systems Estimates results in the 2000 Decennial Census, Zeller (2006. P. 320) also concluded.

> *"Since the Demographic Analysis estimate for young children depended on highly accurate recent birth registration data, The Demographic Analysis estimate is believed to be more accurate. "*

[2] Later this year, the Census Bureau is likely to release an experimental DA series with DA data for ages 0 to 4 for many states and counties. That series is likely to be more accurate than the PEP data used here, but the differences are likely to be minor and that series will not be complete.

The favorable view of the DA methodology for young children is related to the simplicity of the method and the quality of the key data, that is, births and deaths. Overall, nearly all (99 percent) of the estimated population from the national DA estimates for those age 0 to 4 in 2020, comes from birth certificate data (U.S. Census Bureau, 2020). Heavy reliance on birth certificate data and the high quality of birth certificate data provides a strong foundation for County Population Estimates for the population age 0 to 4. The birth and death data used in the Census Bureau's estimates come from the U.S. National Center on Health Statistics (NCHS) and these records are widely viewed as being accurate and complete (Devine, et al. 2010).

The Vintage 2020 Population Estimates have the same favorable qualities as DA. The biggest difference between national DA estimates and county Population Estimates is the inclusion of migration across counties. Migration between counties is captured in the Census Bureau administrative records technique which uses federal tax records to estimate such migration (U.S. Census Bureau, 2012d).

The County Population Estimates are derived using the formula in Equation 1 which is taken from U.S. Census Bureau (2013d).

$$P1 = P0 + B - D + NDM + NIM \quad (1)$$

Where:

P1 = Population at the end of the year

P0 = population at the beginning of the year

B = Births during the year

D = deaths during the year

NDM = net domestic migration during the year

NIM = net international migration during the year.

In this report, county-level census coverage rates for young children are derived by comparing the U.S. Census Bureau's Vintage 2020 Population Estimates for the population age 0 to 4 to the 2020 U.S. Decennial Census counts for this age group. This methodology for examining census coverage at the state and local level has been used by several analysts in the past including several demographers at the Census Bureau (O'Hare 2014c; O'Hare 2017; Siegel et al 1977; Robinson et al. 1993; Adlakha et al 2003; Mayol-Garcia and Robinson 2011; U.S. Census Bureau 2014; Cohn 2011;Jensen and Johnson 2022; King et al. 2018; Hartley et. al. 2021) use this methodology and focus on subnational data.

3.1 The Data

The Vintage 2020 Population Estimates used here are taken from the Census Bureau's file labeled "Annual County Resident Population Estimates by Age, Sex, Race, and Hispanic Origin: April 1, 2010 to July 1, 2020." The file is also labeled "CC-EST2020-ALLDATA." The file is available on the Census Bureau's website https://www.census.gov/programs-surveys/popest/technical-documentation/research/evaluation-estimates/2020-evaluation-estimates/2010s-county-detail.html

These estimates incorporate the results of special censuses and successful local challenges during the previous decade. This file contains yearly estimates for 2010 through 2020, but only the estimates from April 1, 2020, are used in this study. These estimates have a great deal of demographic detail such as sex and racial/Hispanic

groups, but only the figures for the total population age 0 to 4 are used here. At some point it would be useful if someone examined the Vintage 2020 Population Estimates for young Black and Hispanic children compared to the 2020 Census counts.

The data from the 2020 Decennial Census are taken from Table 12P in Demographic and Housing Characteristics file. The data were obtained through CENSUS.DATA.GOV on the Census Bureau's website.

Only counties that had data available from both the 2020 Census and Vintage 2020 Population Estimates) were used in the analysis. There were a handful of counties that did not appear in both the Census counts and the Vintage 2020 estimates Additionally, a few small counties were not included in the analysis because there were problems with the data. For example, there was no population age 0 to 4 in Kalawao County, Hawaii, in the 2020 Census. There were 3,136 counties used in the analysis.

The District of Columbia is treated as a county in this analysis.

It is important to note that for some counties, particularly large counties, the county-wide rate may not show a high net undercount of young children, but there may be some neighborhoods or some communities within the county where the undercount of young children is a serious problem.

The estimate of the net undercount rate for ages 0 to 4 from the DA analysis is 5.4 percent (U.S Census Bureau 2022). Based on comparing the aggregate vintage 2020 C Population Estimates to the 2020 Census counts, the net undercount rates for ages 0 to 4 was 5.0 percent.

For presenting coverage in this paper, I employ the model used by Velkoff (2011). Differences are assessed by subtracting the Vintage 2020 Population Estimate from the

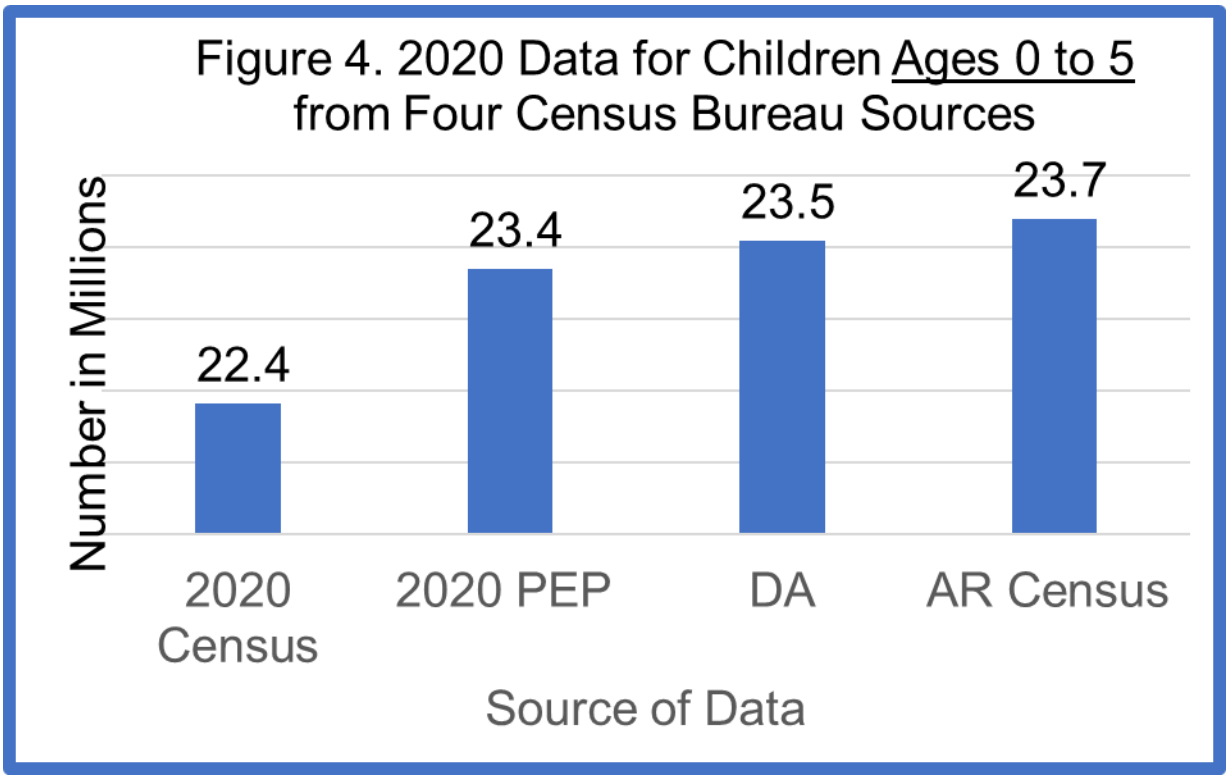
corresponding 2020 Decennial Census figure. If the Vintage 2020 Population Estimate is larger than the 2020 Decennial Census count, that is referred to here as a net undercount and denoted with a negative sign and if the Vintage 2020 Population Estimate is smaller than the 2020 Decennial Census count that is referred to here as a net overcount and denoted with a positive sign. Other studies sometimes report net undercounts as positive numbers (Mule, 2012; Robinson and Adlakha, 2002). If a figure is referred to as an undercount, no minus sign is used.

The undercount estimates derived here are likely to contain some errors, particularly for small counties. With one exception, data for individual counties are not examined here, but rather I look at groups of counties where random error is likely to be a minor problem.

4. Results

I take a look at the national situation before turning my attention to counties.

Figure 4 shows the number of children ages 0 to 5 from the 2020 census, Vintage 2020 Population Estimates (referred to as PEP -- Population Estimation Program), the Census Bureau's Demographic Analysis (DA), and the 2020 Administrative Records (AR) census. The ages group 0 to 5 is used in Figure 4 instead of 0 to 4 because that is the only age grouping reported in the AR census for young children. As stated earlier, DA estimates are usually seen as the most accurate source of data for young children.



There are a couple of implications from the data in Figure 4. First, examining all four series together it is clear the 2020 census is the outlier. For ages 0 to 5, the total count of young children from the Administrative Records (AR) census[3], DA, and the 2020 PEP are all well over 23 million while the figure from the 2020 census is 22.4 million. All these comparisons suggest a 2020 census net undercount of young children of one million or more. This underscores the extent to which the 2020 census figure for the young child population is a serious undercount based on comparisons with multiple sources of data.

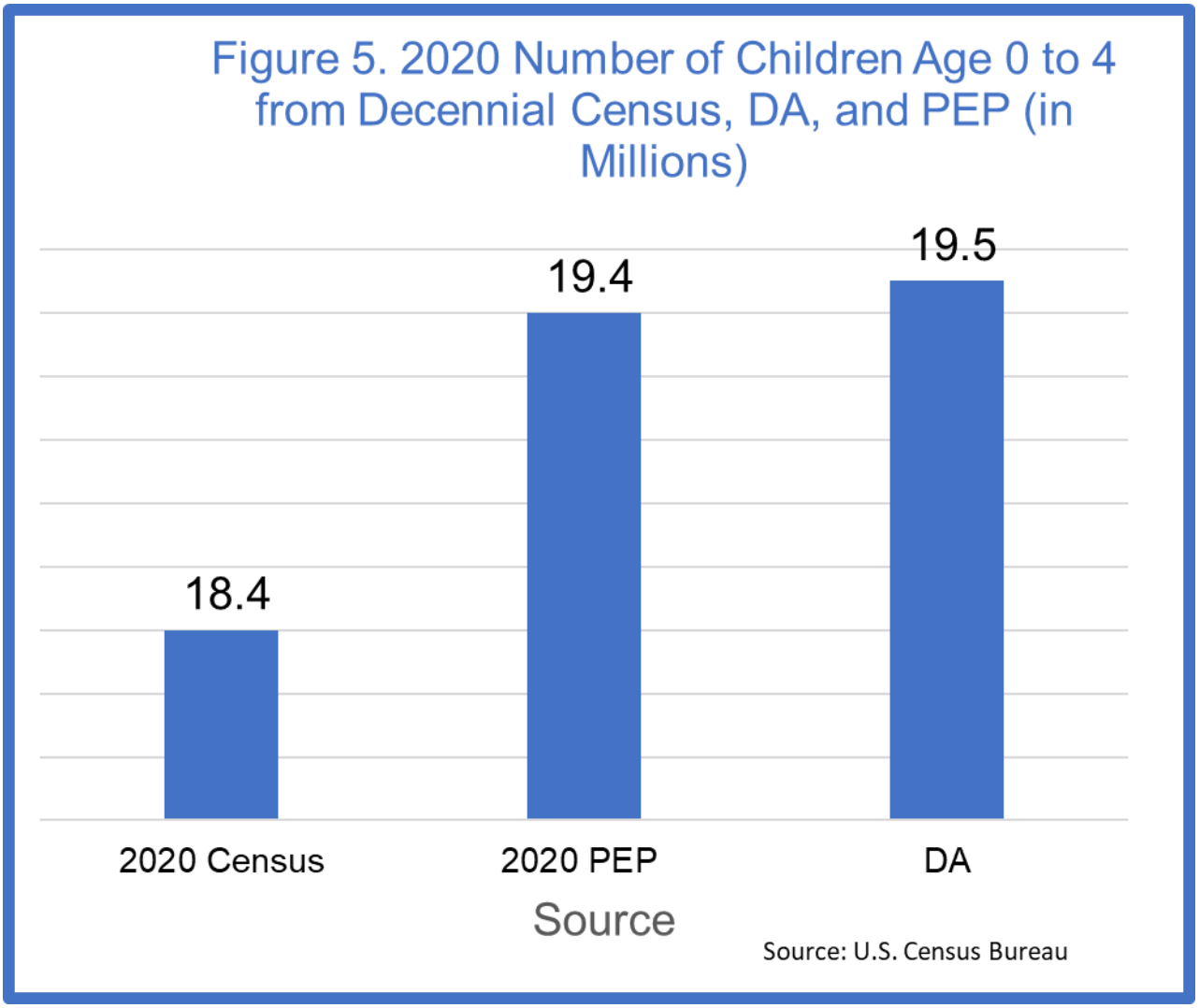
Also, the Vintage 2020 Population Estimate is very similar to DA estimates for

[3] Data for the AR Census are taken from Brown et al. (2023).

ages 0 to 5 (23.4 million for Vintage 2020 PEP and 23.5 million for DA), which suggests that the Population Estimate figure is credible and is probably a more accurate figure for young children than the Census.

Figure 5 shows that for ages 0 to 4, both the 2020 DA estimate and the Vintage 2020 Population Estimate figures are substantially higher than the 2020 U.S. Decennial Census count. The difference between the DA estimate and the U.S. Decennial Census count is 5.4 percent for the population ages 0 to 4 and the difference between the Vintage 2020 Population Estimate and the Census Count is 5.0 percent. Also, both the DA estimates and the Vintage 2020 Population Estimates indicate there was a net undercount of about one million children ages 0 to 4. For the population age 0 to 4, the DA estimates and the Vintage 2020 Population Estimates are very similar (19.4 million for the Population Estimate and 19.5 million for the DA estimate). More important than the small difference between the Population Estimates and the DA estimates is the fact that both are substantially higher than the 2020 Decennial Census count (18.4 million).

The consistency between the national population DA estimates and the corresponding Vintage 2020 Population Estimates, for ages 0 to 4, underscores the likelihood that the Population Estimates provides accurate estimates of the distribution of the national undercount of the population ages 0 to 4 among the states. This bolsters the belief that using Vintage Population Estimates is an effective way to assess coverages for young children in the 2020 census.



The Population Estimates are thought to be more accurate than the Census for four main reasons.

1. There is clearly a high net undercount of young children in the 2020 Census.
2. The Population Estimates for ages 0 to 4 are largely based on birth certificate data which is widely thought to be very reliable.
3. The data sources and methodology for producing PEP estimates is nearly identical to the DA method.

4. The extent to which the Vintage 2020 Population Estimates for young children are consistent with DA estimates at the national level underscores the suitability of using the Vintage 2020 Population Estimates to examine the subnational geographic distribution of the net undercount of young children.

County Data

Table 1 shows a few county-level summary statistics for young child coverage in the 2020 Census. The average county had a net undercount rate of 3.1 percent and a net undercount of 311 young children. However, the standard deviations indicate there is a lot of variation around those averages. The minimum and maximum also indicate a lot of variation in net undercount rates and numbers.

Table 1. Summary Statistics for County Undercounts of Young Children in the 2020 Census

	Net Undercount Rate for Young Children	Number of Undercounted Young Children
Average	-3.1	-311
Standard Deviation	9.4	1,786
Maximum value	226	1,864
Minimum value	-56	-57,160

In terms of net child coverage rates, the values range from a net child undercount of 56 percent to a net child overcount of 226 percent (It should be noted that the extreme results are from small counties). In terms of coverage numbers, the data range from an undercount of 57,160 children to an overcount of 1,864 children. This also reflects the

relatively large undercounts in the counties with undercounts compared with the relatively small overcounts in the counties with overcounts.

Since the county average net undercount (3.1 percent) is quite different than the national undercount rate of 5.4 percent for this age group, it indicates that the national net undercount rate for young children is not a good reflection of the experience in most counties. It also indicates the national net undercount for young children is driven by high undercount rates in large counties. This issue will be addressed later in this report.

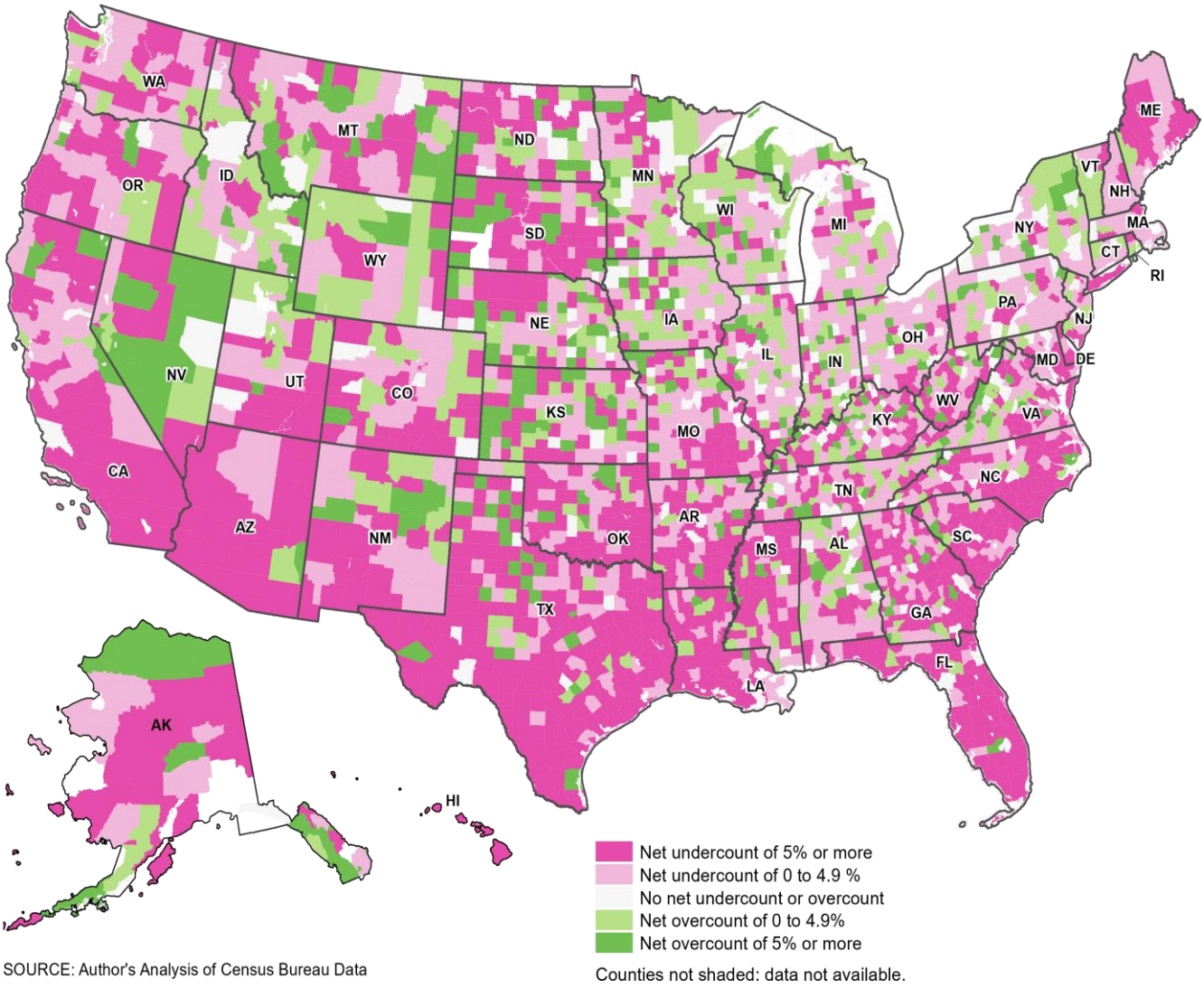
Data in Table 2 indicate the vast majority of counties had a net undercount of young children in the 2020 Census. Of the 3,136 counties in the analysis 2,178 (69 percent) had a net undercount for young children. A large share of the counties with net undercounts rates for young children had very high net undercount rates. Data in Table 2 shows 39 percent of all counties had a high (5 percent or more) net undercount rates for young children in the 2020 Census. On the other end of the spectrum, only 9 percent of counties had a high net overcount (5 percent or more) of young children.

Table 2. Distribution of Counties by Net Coverage Rate for Young Children in the 2020 Census		
	2020 Census	
Category	Number of Counties	Percent of All Counties
5 percent or more undercount	1,220	39
0-4.99 percent undercount	958	31
0	214	7
0-4.99 percent overcount	450	14
5 percent or more overcount	294	9
Total	3,136	100
Distribution is based on rounding coverage rate to whole		

Geographic Distribution

Map 1 shows the counties color coded into four categories based on coverage rates in the 2020 Census . The dark pink counties are those with the high net young child undercounts (5 percent or more), lighter pink indicates a net undercount between 0 and 4.5 percent, a light green shade indicates a net overcount between 0 and 4.5 percent, and the dark green coded counties are those with high net overcount rates for young children (5 percent or more) .

Map 1. Net Coverage of Population Ages 0 to 4 in the 2020 Census by County



SOURCE: Author's Analysis of Census Bureau Data

While counties with high net young child undercounts can be found in every part of the counties, they are more pronounced in the South and Southwest.

Figure 6 shows the aggregate net young child undercount rates based on Census regions. As Map 1 suggests, net young child undercount rates are much higher in the South and the West regions, compared to the Northeast and Midwest regions. The net

young child undercount rates for the South (6.2 percent) and the West (6.1 percent) are roughly twice as high as those in the Northeast (3.7 percent) and the Midwest (2.6 percent).

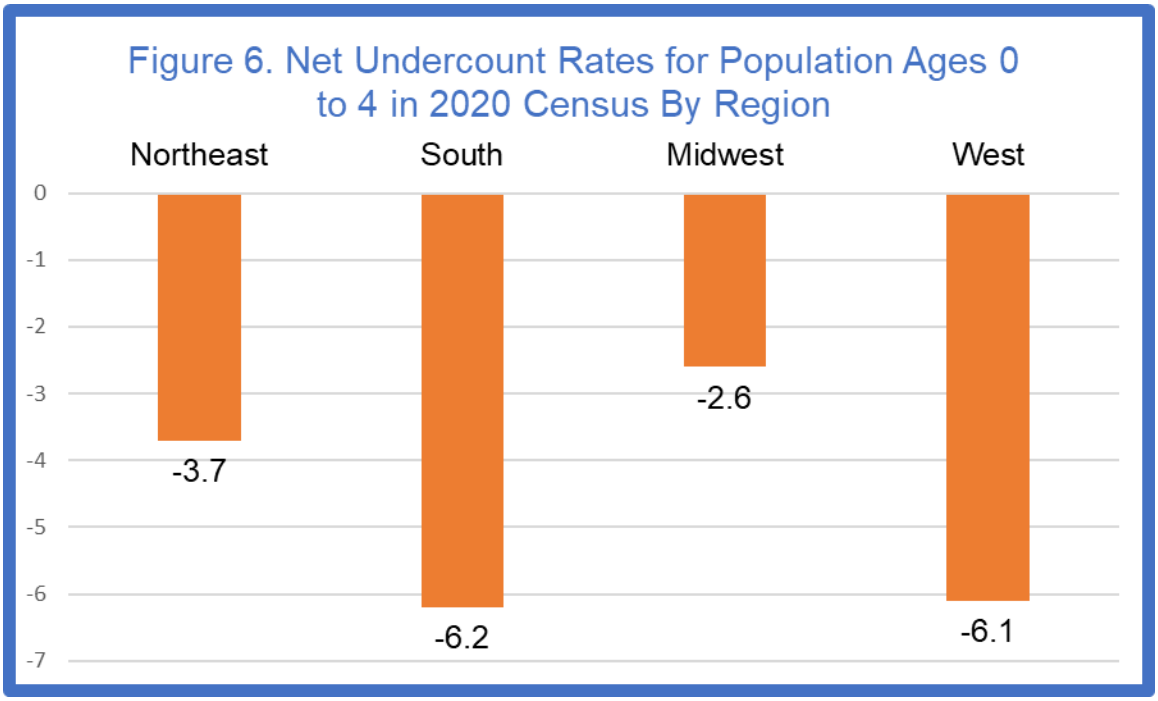


Table 3 shows the distribution of counties within states based on the five categories of coverage shown in Map 1. The states are ranked by the percent of counties with high net undercount rates for young children. Two things are clear. First, there is a lot of variation across the states. Second, the states with the highest percentages are mostly in the South and Southwest. Of the top ten states in the ranking, nine are in the South or Southwest as defined by the Census Bureau.

Table 3 Distribution of Young Child Net Coverages in States and States Ranked by Percent of Counties with High Net Undercount of Young Children					
	Percent Distribution of Counties by Net Coverage for Young Children				
State	Net Undercount 5% or more	Net Undercount 0 to 4.5 %	No net Undercount or Overcount	Net Overcount 0 to 4.5 %	Net Overcount 5% or more
District of Columbia	100	0	0	0	0
Hawaii	100	0	0	0	0
Florida	81	12	3	3	1
Arizona	80	7	0	7	7
Texas	71	15	2	5	7
Delaware	67	33	0	0	0
Louisiana	64	25	2	5	5
South Carolina	63	24	2	7	4
Oklahoma	62	25	1	6	5
Mississippi	61	21	4	12	2
North Carolina	58	27	6	6	3
Georgia	55	28	5	8	5
South Dakota	55	19	3	5	19
Arkansas	52	29	4	9	5
Maine	50	44	0	6	0
California	45	41	3	5	5
Virginia	44	30	7	10	10
Colorado	42	28	8	19	3
North Dakota	42	15	15	11	17
West Virginia	40	25	7	13	15
New Mexico	39	27	0	21	12
Oregon	39	39	8	6	8
Alaska	38	27	4	8	23
Missouri	38	35	8	10	9
Utah	34	24	10	21	10
Kentucky	34	26	10	17	13
Kansas	30	28	4	14	24
Montana	30	25	5	16	23
Nevada	29	6	6	12	47
Maryland	29	58	8	4	0
Washington	28	51	0	15	5
Nebraska	28	26	8	19	19
Tennessee	26	42	8	17	6
Alabama	24	39	9	21	7
Minnesota	23	31	11	26	8
Massachusetts	21	64	7	7	0
Illinois	21	35	12	20	13
Rhode Island	20	20	20	40	0
New Jersey	19	48	10	24	0
Indiana	17	36	10	27	10
Wyoming	17	22	9	35	17
Pennsylvania	16	51	13	13	6
New York	16	37	16	21	10
Iowa	15	39	9	26	10
Ohio	15	55	11	14	6
Michigan	14	46	6	24	10
Vermont	14	21	7	57	0
Wisconsin	13	32	8	36	11
New Hampshire	10	90	0	0	0
Idaho	9	30	14	32	16
Connecticut	0	63	13	25	0
Total	39	31	7	14	9

County Size

Table 4 shows net undercounts of young children by county size based on total population in the 2020 Census.

Table 4 2020 Census Net Undercounts of Young Children by County Total Population Size

				Difference (Census - Estimate)		
Total Population Size of County	Number of Counties	Aggregate Population Estimate	Aggregate Census Count	Number	Percent	Share of National Net Undercount of Young Children
Less Than 5,000	317	50,402	48,528	-1,874	-3.7	-0.2
5,000- 9,999	411	177,202	170,113	-7,089	-4.0	-0.7
10,000-19,999	594	494,283	473,316	-20,967	-4.2	-2.1
20,000-49,999	824	1,529,811	1,472,852	-56,959	-3.7	-5.8
50,000-99,999	387	1,542,252	1,498,816	-43,436	-2.8	-4.5
100,000-249,999	326	2,923,885	2,836,489	-87,396	-3.0	-9.0
250,000 -499,999	135	2,751,960	2,649,774	-102,186	-3.7	-10.5
500,000-999,999	93	3,958,407	3,768,078	-190,329	-5.1	-19.5
1,000,000+	49	5,938,424	5,473,092	-465,332	-8.5	-47.7
Total	3,136	19,366,626	18,391,058	-975,568	-5.0	-100.0

For counties with less than 500,000 in total population the net coverage rates for young children do not differ much by county total population size. They vary from a low of 2.8 percent to a high of 4.2 percent across seven categories of population size. However, counties with a million or more residents have much higher net undercount rates for the population ages 0 to 4. Table 4 shows that 49 counties with half a million more people had a collective net undercount rate of 8.5 percent for the population age 0 to 4 which is about twice the rate that counties less than 500,000 experienced.

Data in Table 4 also show that the national net undercount of the population age 0 to 4 is highly concentrated. A very large share of the net undercount of young children occur in a relatively small number of large counties.

The last column in Table 4 shows the share of the national net undercount of young children accounted for by each county population size category. Almost half (47.7 percent) of the net undercount of young children is accounted for by the 49 largest counties, those over one million in total population. And more than two-thirds (67.2 percent) is accounted for by the two largest categories (those over 500,000).

The ten counties with the largest net undercount of young children are shown in Table 5. In the ten counties in the country with the largest net undercount of young children, the aggregate total net young child net undercount is 250,581, which is 26 percent of all undercounted young children in the 2020 Census. Note that all ten of these counties have above average net young child undercount rates as well as a high number of undercounted young children.

Table 5 Ten Counties with the Largest Numeric Undercount of Young Children in the 2020 Census			
Rank	County Name	Net Undercount of Young Children in 2020 Census	Net Undercount Rate of Young Children in 2020 Census
1	Los Angeles County, California	-57,160	-10
2	Harris County, Texas	-29,865	-9
3	Miami-Dade County, Florida	-25,335	-16
4	Orange County, California	-24,570	-14
5	Dallas County, Texas	-23,308	-12
6	San Diego County, California	-23,256	-12
7	Maricopa County, Arizona	-20,241	-7
8	Cook County, Illinois	-18,418	-6
9	San Bernardino County, California	-14,634	-10
10	Broward County, Florida	-13,794	-12
	Total in top ten counties	-250,581	-10
	Total Net Undercount based on comparison of Vintage 2020 Estimates to 2020 census	975,568	
	Share of national net undercount of young children in top ten counties	26	

The potential impact of reducing net undercounts of young children in large counties can be shown in the following way. If the counties with total populations of more than 500,000 had the same undercount rate for age 0 to 4 as all counties in the 2020 Census (3.1 percent), the net undercount of young children would have been reduced by 348,859 and the net undercount rate would have been a little over 3 percent.

6. Summary

This study extends a set of analyses that address one of the biggest problems in terms of the accuracy in the U.S. Decennial Census, namely the high net undercount of young children.

The data examined here indicate that the net undercount rate for the population age 0 to 4 varies substantially across counties. Nearly 70 percent of all counties had a net undercount of the population age 0 to 4.

Data examined here also show there is a great deal of variation in net young child undercount rates across the country. Consequently, the national rate does not reflect the experiences in most counties. This underscores the importance of developing subnational rates.

Analysis here addresses the geographic distribution of the net undercount of young children in the 2020 Census among counties. Analysis shows counties in the South and Southwest have much higher net undercount rates than counties in the Northeast and Midwest. Of the ten states with the highest percentages of counties with young child net undercounts of 5 percent or more, nine are in the South and Southwest.

Moreover, the data show that larger counties account for the vast majority of the national net undercount for the population age 0 to 4. In the 142 largest counties based on total population, there was a net undercount of 655,661 persons age 0 to 4 which accounts for about two-thirds of the nationwide net undercount for this age group.

The analysis indicates that the net undercount of young children is concentrated in the largest counties in the country. The concentration of the net undercount of young children in a relatively small number of large counties is a product of the large number of young children who live in those large counties and the relatively high net undercount rate for young children in those counties.

This information about where the net undercount rates for young children are the highest should help the U.S. Census Bureau and census stakeholders prepare for the 2030 Decennial Census. The data presented in this study will help the Census Bureau pinpoint the places that deserve special attention in the 2020 Census. However, it is important to recognize knowing where to focus attention is not the same as knowing what to do to improve the count of young children in the 2030 Census. There is still a lot of work to be done to develop plans that will reduce the undercount of young children in the 2030 Census.

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