Analysis of 2020 Census Net Undercount of Young Hispanic Children by County

By

William P. O'Hare[1],[2] and Susana Quiros[3]

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Abstract

In the 2020 Census, the net undercount of young (age 0 to 4) Hispanic children was 8.6 percent compared to 5.4 percent for all young children. However, the net undercount of young children (total and Hispanic) is not distributed evenly across the country. This study extends existing research by examining the net coverage of young Hispanic children by county. The analysis focuses on the distribution of county-level net undercount rates and the number of young Hispanic children undercounted. County-level coverage rates are analyzed according to their location (state and region) and county population size. While there is a lot of variation in census coverage of young Hispanics, most counties (63 percent) have net undercounts. Moreover, the vast majority of young Hispanic children (85 percent) live in a county that experienced a net undercount of young Hispanics in the 2020 Census. Results show that the net undercount of young Hispanic children in the 2020 Census was highly concentrated in a few states and a relatively few counties. The top six states account for 76 percent of the national net undercount of young Hispanic children. The top 50 counties, in terms of net undercount numbers, account for 71 percent of the nationwide undercount of young Hispanic children in the 2020 Census. As with the count of the total population of young children, large counties have high net undercounts. On the other hand, unlike the count of the total population of young children, young Hispanic children experience high net undercounts in smaller (under 20,000 people) counties. Unlike the other three regions, the Midwest region has a net overcount of young Hispanic children.

[1] Consultant to the Count All Kids Campaign

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[3] University of Missouri

County-Level Analysis of 2020 Census Coverage of Young Hispanic Children

By

William P. O'Hare and Susana Quiros

Introduction

The overall census coverage rate for the 2020 total population appears very accurate (U.S. Census Bureau 2022a). However, the 2020 Census undercount rates for many traditionally vulnerable groups were remarkably high. This report focuses on one such group: young Hispanic children.[4]

The net undercount of young children (ages 0 to 4) in the U.S. Census has gained increased attention because the net undercount of young children in the 2020 Census – 5.4 percent – is much higher than any other age group. The age group with the second highest net undercount rate was adults ages 25 to 29, with a 2.9 percent net undercount rate. Also, the undercount of young children has increased steadily from 1.4 percent in 1980 to 5.4 percent in 2020, while the census coverage of other groups has improved.

Within the young child population, young Hispanic children historically have suffered higher net undercounts than other groups. In the 2020 Census, the net undercount of young Hispanic children (8.6 percent) was 60 percent higher than the rate for all young children (5.4 percent) based on the Census Bureau's Demographic Analysis.

[4] In this paper we use the term Hispanic rather than Latino because it is more consistent with the literature cited here. Moreover, 61 percent of Hispanics self-identify as "Hispanic" (Noe-Bustamante et al., 2020).

Coverage of young Hispanic children in the 2020 Census should be seen in the broader context of the 2020 Census**.** Although the 2020 Census faced extraordinary challenges that impacted the population count (National Academy of Sciences, 2023), at least one factor was heavily focused on Hispanics. The Trump administration's last-minute push to add a citizenship question to the census exacerbated distrust, fear, and confusion in the Hispanic community (Cohn et al., 2020; Gamboa, 2020, National Association of Latino Elected and Appointed Officials 2019). The push to add a citizenship question was accompanied by anti-immigrant rhetoric and action across a wide range of federal programs.

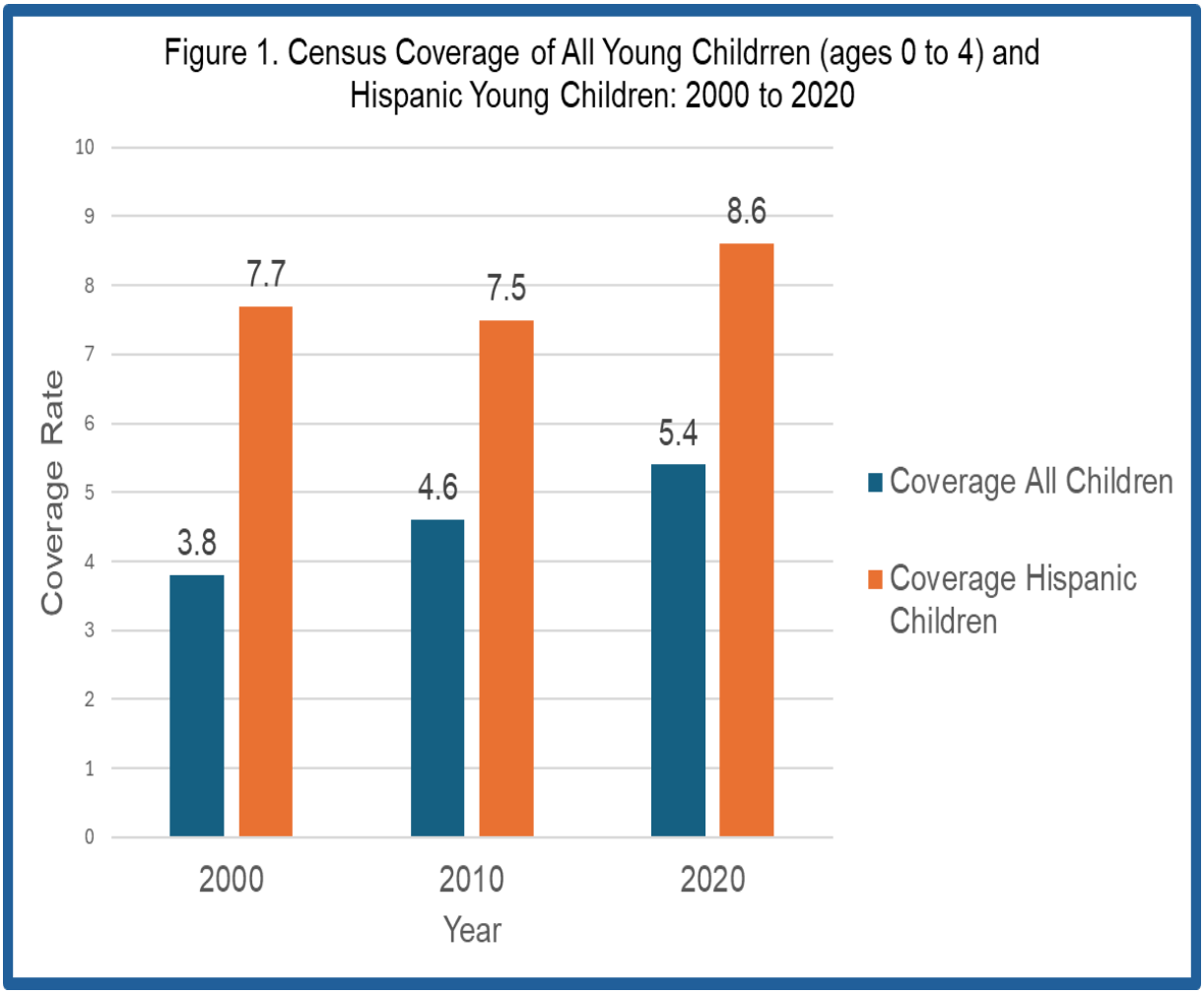
While the Supreme Court ultimately blocked the addition of the question on citizenship, that decision might not have assuaged all the fears associated with responding to the census. These unprecedented challenges could have significantly impacted data accuracy for young Hispanic children in the 2020 Census by increasing the net undercount. For example, the undercount rate of Hispanics of all ages tripled between 2010 and 2020, from 1.54 percent to 4.99 percent (U.S. Census Bureau, 2022a). This undercount is particularly problematic for Hispanic children under age five, as this group has been historically and disproportionally undercounted (O'Hare, 2015, 2019; Quiros and O'Hare, 2024, O'Hare et al 1026a).

However, the high net undercount of young Hispanic children in the 2020 Census is not a new problem.[5] Figure 1 shows that in the 2000, 2010, and 2020 Census, the net

[5] Figure 1 shows the official undercount rate for young Hispanic in the 2010 Census, but later analysis by the Census Bureau (Jensen et.al. 2018) suggests the true undercount rate is probably in the 4 to 5 percent range. Thus, it is possible that there was a substantial increase in undercount rates for young Hispanic children between 2010 and 2020

undercount of young Hispanic children was much higher than the rate for all young children.

While the anti-immigrant rhetoric of the Trump administration is likely to have had an impact on the net undercount of Hispanics in the 2020 Census, the high net undercount of young Hispanic children in 2000 and 2010 suggests this is a chronic problem that goes beyond the Trump effect.



Several studies have explored the geographic distribution of undercounted young children (Johnson, 2022; O'Hare, 2014 and 2017; Jensen and Hayward, 2024; O'Hare 2023; Quiros and O'Hare, 2023; Quiros and O'Hare 2024). We add to that research stream by examining the 2020 Census county-level coverage of young Hispanic children.

Counties are analyzed regarding net undercount rates and the number of young Hispanic children undercounted. We examine variations by geographic location (state and region) and county population size.

It is crucial to measure subnational accuracy because uneven coverage of young Hispanic children in the 2020 Census has implications for data equity, civil rights, and statistical issues. National figures do not tell us anything about the geographic distribution of undercounted young Hispanic children (O'Hare, 2023).

Moreover, geographic details of census data are critical for distributing political power and federal dollars. In fiscal year 2020, 338 federal programs relied on census data to allocate $2.1 trillion across states and communities (Project on Government Oversight, 2023). Some programs, such as the Head Start, Children's Health Insurance programs, and WIC Special Supplemental Nutrition Program for Women Infants, assist low-income families by providing for basic needs. Given the high poverty rate of young Hispanic children, they are over-represented in these needs-based program. Thus, an undercount might leave some states underfunded and vulnerable populations such as babies and toddlers underserved. The large amount of money the federal government distributes ($2.7 trillion in 2021) based on Census Bureau data means that even minor errors can translate into meaningful sums of money (U.S. Census Bureau 2023a).

Data and Methods

According to the U.S. Census Bureau (2021b, p 1), “One of the primary methods of evaluating the quality of a census is comparing the results to other population benchmarks.” That is the approach used in this study.

To produce the net coverage rates (described below), we used the 2020 Vintage Population Estimates (U.S. Census Bureau 2024b). The term vintage denotes the year reflected in the data. In this paper, the population estimates are also referred to as PEP (Population Estimates Program).

The U.S. Census Bureau releases population estimates annually by race/ethnicity and age group for the nation, states, counties, state/county equivalents, and Puerto Rico. This paper used the Vintage 2020 Population Estimates for April 1, 2020, for Hispanics ages 0 to 4. This paper includes the District of Columbia (D.C.) as a county but does not include data for Puerto Rico.

The count of young Hispanic children from the 2020 Census is taken from the 2020 Census Demographic and Housing Characteristics (DHC) file (Table 12H on data.census.gov) (U.S. Census Bureau 2024b).

The numeric undercount (or overcount) is the difference between the Census count and the PEP estimate.

We follow the same convention as the U.S. Census Bureau and many other researchers to calculate the net coverage rate for counties. (Hartley et al., 2021; Jensen

and Johnson, 2021; King et al., 2018; O'Hare, 2014). Based on data from the population estimates and the U.S. Census:

$$\text{Net Coverage Rate} = 100 \times \frac{Census\ Count - Population\ Estimate}{Population\ Estimate}$$

The net undercount rate is expressed as a percentage, with negative values indicating an undercount (the population estimate is larger than the census count) and a positive value indicating an overcount (the census count exceeds the population estimate). This is consistent with most other research on census coverage.[6]

Counties with small numbers of young Hispanic children are likely to produce unreliable or highly unstable coverage estimates, so they are not shown separately. However, when such counties are grouped with other counties, the random errors will likely cancel each other out and produce reliable estimates for the group. That is the approach taken in this paper.

There are four reasons why the population estimates are thought to be more accurate than the Census counts for the population ages 0 to 4.

First, there is a high net undercount of young Hispanic children in the 2020 Census. There is no similar evidence of high errors in the population estimates of young Hispanic children.

Second, population estimates for ages 0 to 4 are primarily based on birth certificate data, which is nearly 100 percent complete in the United States (Jensen, 2022). The contribution of birth certificate data in the DA estimates is not available separately for

[6] When coverage is measured this way, it makes it a little more difficult to understand correlation coefficients, but we only have one such correlation coefficient in this paper.

young Hispanic children. Still, according to DA middle series data released by the Census Bureau in December 2020, 98.9 percent of the total population of children ages 0 to 4 is accounted for by birth certificates (19,250,000/19,458,000 = 98.9 percent).

Third, data sources and methodology for producing population estimates are nearly identical to the Census Bureau's Demographic Analysis method, which is the preferred method for estimating young child undercounts nationally(Jensen et al., 2020; U.S. Census Bureau, 2021a). In discussing the two principal methods used by the Census Bureau to measure census coverage, the Census Bureau (2021b, page 2) says, "While both methods have their strengths and limitations, DA is a better approach for assessing the census count of young children because the estimate comes primarily from the birth records which are considered 100% complete in the United States,"

Finally, the results of the Vintage 2020 Population Estimates for young children, including Hispanic children, are nearly identical to the Census Bureau's Demographic Analysis estimates at the national level, which underscores the suitability of using the Vintage Population Estimates to examine the subnational geographic distribution of the net undercount rates of young children. The DA middle series estimate for Hispanics ages 0 to 4 is 5.1 million compared to the Vintage 2020 Population Estimates for Hispanic children ages 0 to 4, which is 5.0 million. The Census count is 4.6 million.

Some counties were not used in the analysis because they were not in both datasets (2020 Census and Vintage 2020 population estimates). Also, several counties did not have any young Hispanics, which produced undefined coverage rates, so they were removed from the coverage rates analysis and the net numeric analysis. The

removed counties were small and unlikely to impact the analysis.[7] That left 3,115 counties for our analysis.

Keep in mind that the net undercount is different from the number of people missed. The net undercount is a balance between the number of people missed (called omissions by the Census Bureau) on the one hand and the number of erroneous enumerations (people counted more than once as well as the number of people included in error) on the other hand. A net undercount means the number of people missed (omissions) was larger than the number of erroneous enumerations (duplications or wrongly included persons). Whole-person imputations also have a role in determining net undercounts and overcounts. While omissions for adults can be measured using the Post Enumeration Survey (PES), reliable data on omissions for young Hispanic children are unavailable due to correlation bias in the PES method (O'Hare et al. 2016b).

Results

This paper analyzes data using two different perspectives, and both perspectives are important. We first examined the number of young Hispanic children undercounted for different geographic areas. We call this the 'numeric undercount' to differentiate it from the net undercount rate, which is the second perspective in the analysis.

High net undercount rates for localities reflect places where each young Hispanic child is relatively likely to be missed (undercounted) in the census. The numeric net

[7] Counties with no Hispanic young children could have been used in analysis of numeric undercounts but we thought it better to use the same set of counties for analyses of rates and numbers.

undercount reflects counties where large numbers of young Hispanic children are undercounted regardless of coverage rates.

Nationally, 4,635,698 Hispanic children under age five were counted in the 2020 Census, compared to 5,010,898 in the Vintage 2020 Population Estimates.[8] Based on these numbers, the PEP analysis shows a nationwide net undercount of 375,200 young Hispanics and a net undercount rate of 7.5 percent. While 7.5 percent is not as high as the DA estimate of 8.6 percent, it is still an extremely high net undercount.

Table 1 shows the county distribution of the 2020 Census net numeric coverage for young Hispanic children. There is a lot of variation in the net coverage numbers of young Hispanic children across the counties. There were 76 counties with a net numeric undercount of 1,000 or more young Hispanic children and seven counties with net overcounts of 500 to 999. No counties had a net overcount of 1,000 or more young Hispanic children.

Table 1 shows that the distribution is skewed toward net undercounts. There are not only more counties with net undercounts but also more counties in the larger undercount categories. Of the 3,115 counties in the analysis, 63 percent had a net undercount of young Hispanic children.

But many of those counties had relatively small net undercounts; 51 percent had net numeric undercounts under 100 young Hispanic children, and 33 percent had net numeric overcounts of less than 100 young Hispanic children. Eighty-four percent of counties had coverage rates for young Hispanic children between +99 and -99.

[8] These numbers include all counties, so they are slightly different than data presented later in this paper.

Analysis shows that 4,286,806 young Hispanic children live in 63 percent of counties with a net undercount (based on PEP estimates). That amounts to (4,286,806/4,960,420 = 86) 86 percent of all young Hispanic children.

Table 1. Distribution of 2020 Census Numeric Coverage for Young Hispanic Children in Large Counties

	Number of Counties in Category	Percent of All Counties
Undercount number more than 1,000	76	2.4
Undercount number 500- 999	47	1.5
Undercount number 100-499	253	8.1
Undercount number 0- 99*	1,579	50.7
Overcount number 1-99	1,020	32.7
Overcount number 100 -499	133	4.3
Overcount number 500- 999	7	0.2
Overcount number more than 1000	0	0.0
Total	3,115	100.0
Source: Authors analysis of Census Bureau data.		
* this category includes counties with zero coverage error.		

Figure 2 graphically shows key data from Table 1. Most of the counties had relatively small coverage errors. Combining the middle two size categories, we find that 84 percent of the counties had net coverage rates between -99 and +99.

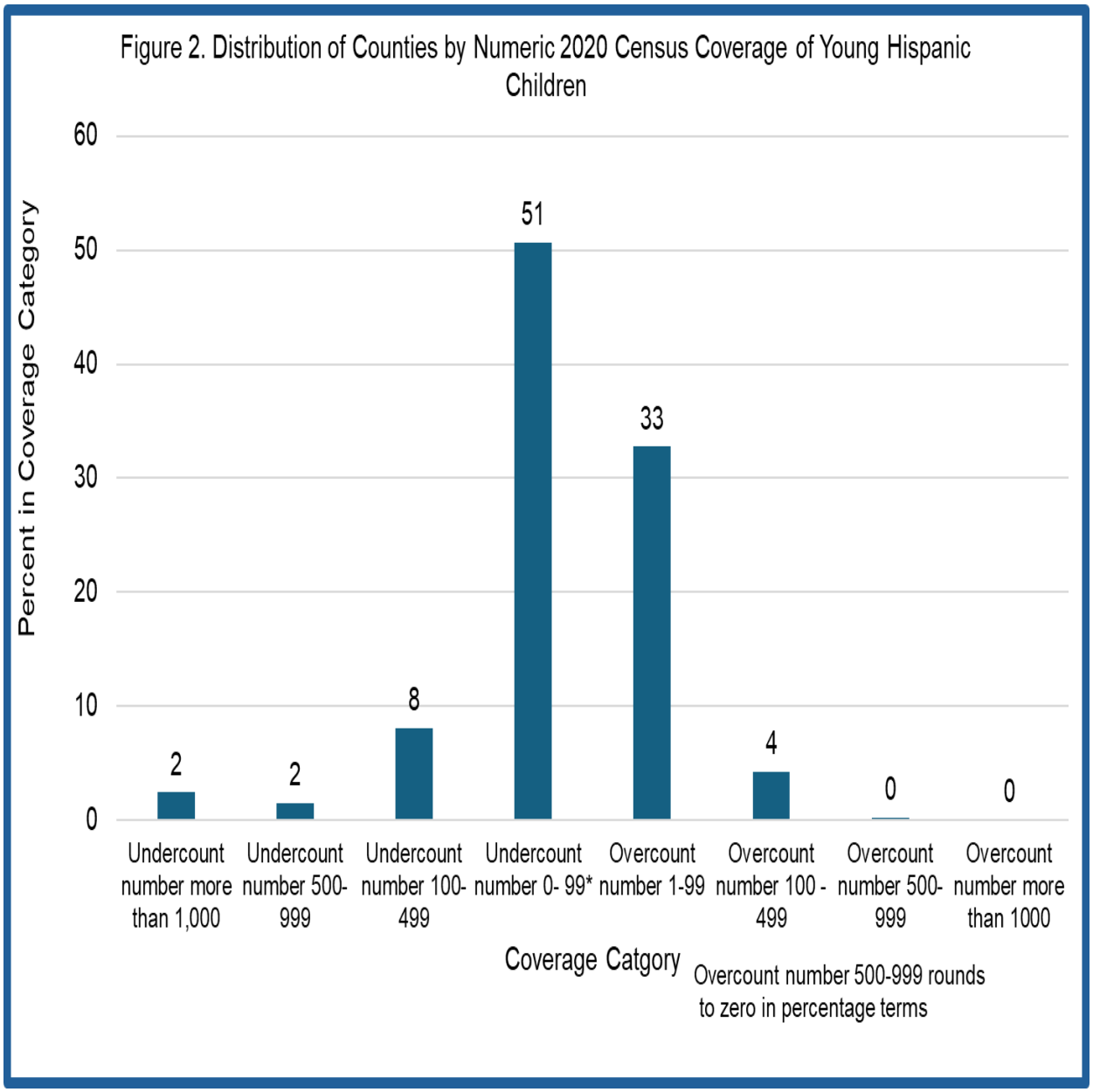
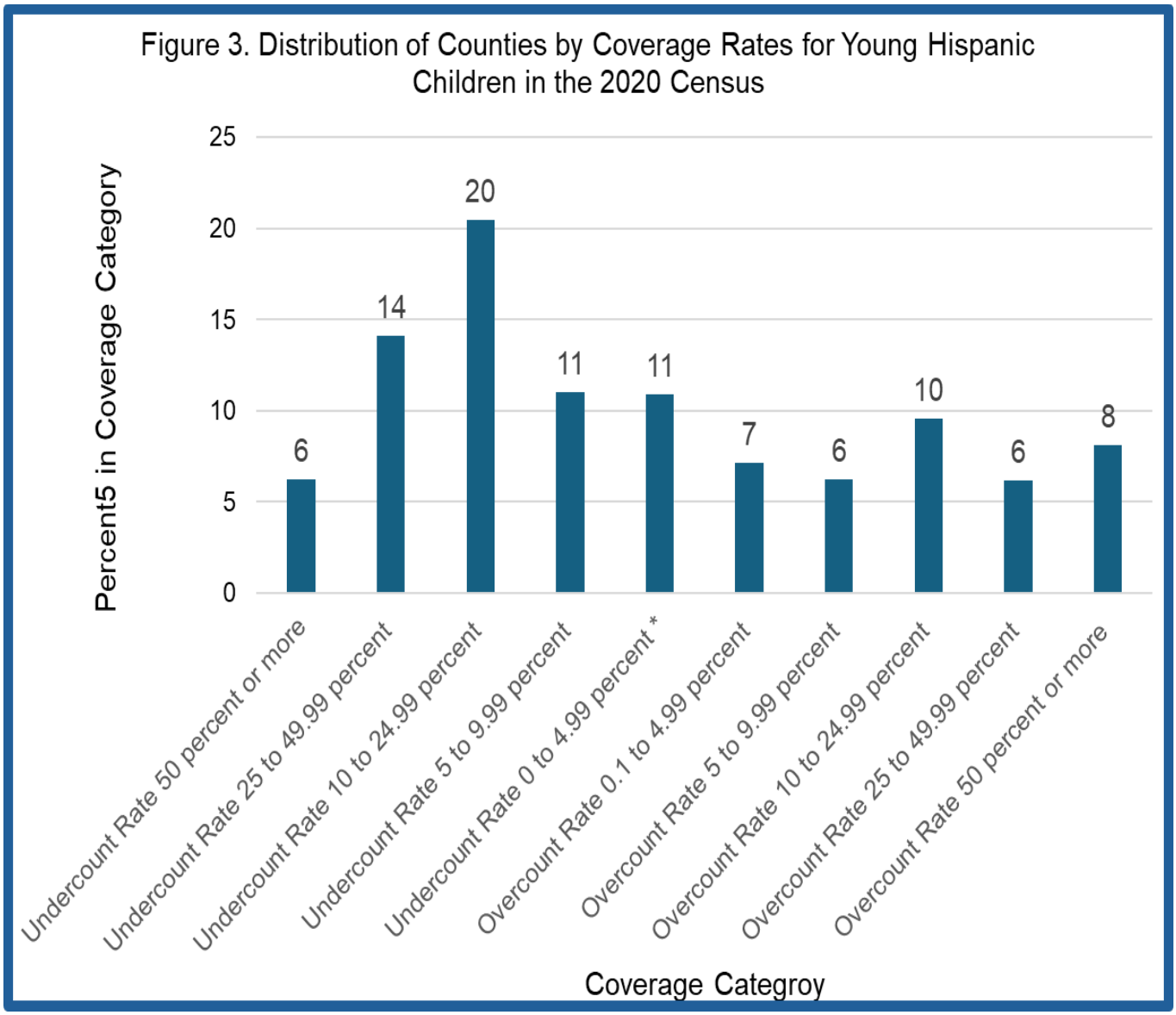


Table 2 shows the distribution of counties by the net coverage rates for young Hispanic children in the 2020 Census.

Table 2. Distribution of 2020 Census County Coverage Rates for Young Hispanic Children		
	Number of Counties in Category	Percent of All Counties
Undercount Rate 50 percent or more	194	6.2
Undercount Rate 25 to 49.99 percent	440	14.1
Undercount Rate 10 to 29.99 percent	637	20.4
Undercount Rate 5 to 9.99 percent	344	11.0
Undercount Rate 0 to 4.99 percent *	340	10.9
Overcount Rate 0.1 to 4.99 percent	222	7.1
Overcount Rate 5 to 9.99 percent	195	6.3
Overcount Rate 10 to 24.99 percent	298	9.6
Overcount Rate 25 to 49.99 percent	193	6.2
Overcount Rate 50 percent or more	252	8.1
Total	3,115	100.0
Source: Authors analysis of Census Bureau data.		
* this category includes counties with zero coverage error.		
Analsyis based on rates taken to 2 decimal places.		

There is much variation in the net undercount rates for young Hispanic children. For example, 6 percent of counties had net young Hispanic child undercount rates of 50 percent or more, and 8 percent had net young Hispanic children overcount rates of 50 percent or more. But the distribution skews towards net undercounts. Of the 3,115 counties in our analysis, 1,944 (or 63 percent) had a net undercount of young Hispanic children.

The key data from Table 2 is shown graphically in Figure 3.



50 counties with the largest net numeric undercounts

The 50 counties with the largest net numeric undercounts of young Hispanic children are shown in Table 3. The counties in Table 3 have a high numeric net undercount of young Hispanic children, and most also have high net undercount rates. A little more than 80 percent (41 of 50) **of** the top 50 counties in Table 3 have net

undercount rates for young Hispanic children that are above the national figure of 8.6 percent. None of the top 50 counties had a net undercount rate lower than 6.3 percent, which is still a high net undercount rate by any standard. All counties in Table 3 have numeric net undercounts of 1,722 or more. Regarding targeting outreach in the 2030 Census, this list of counties provides some critical information.

Los Angeles County has the largest net numeric undercount, at 28,811 young Hispanic children. Seven other counties have net numeric undercounts of 10,000 or more young Hispanic children.

Some of these counties have exceptionally high net undercount rates. There are six counties in Table 3 (Philadelphia, PA (23,1%), Webb County, TX (22.1%), Honolulu, HI (26.1%), Imperial County, CA (23.9%), Ector County, TX (22.7%), District of Columbia (30.8%) with net undercount rates above 20 percent.

Almost half (23 out of 50) of the top fifty counties are in California (12 counties) and Texas (11 counties). New York has six counties, and Florida has five. This means more than two-thirds of the top 50 counties are in just four states.

Table 3. 50 Counties with Largest Numeric Undercount of Young Hispanic Children in the 2020 Census						
Rank	State	County	Census Total Hispanics ages 0 to 4 in Census	Vintage 2020 Population Estimates for Hispanics ages 0 to 4	Numeric Difference (Census - PEP)	Percent Different (Census-PEP)/PEP
1	California	Los Angeles County	290,340	317,151	-26,811	-8.5
2	Texas	Harris County	157,024	177,097	-20,073	-11.3
3	Florida	Miami-Dade County	77,985	92,833	-14,848	-16.0
4	Arizona	Maricopa County	110,098	124,662	-14,564	-11.7
5	Texas	Dallas County	82,684	95,938	-13,254	-13.8
6	California	San Diego County	76,156	88,289	-12,133	-13.7
7	Texas	Hidalgo County	58,925	70,882	-11,957	-16.9
8	Texas	Bexar County	83,969	93,204	-9,235	-9.9
9	New York	Bronx County	50,555	58,758	-8,203	-14.0
10	California	Riverside County	87,962	95,539	-7,577	-7.9
11	California	San Bernardino County	86,201	92,882	-6,681	-7.2
12	Texas	El Paso County	44,546	50,493	-5,947	-11.8
13	Pennsylvania	Philadelphia County	18,509	24,062	-5,553	-23.1
14	Texas	Cameron County	25,704	31,022	-5,318	-17.1
15	Nevada	Clark County	54,143	59,452	-5,309	-8.9
16	Texas	Webb County	18,386	23,607	-5,221	-22.1
17	New York	Queens County	37,878	43,016	-5,138	-11.9
18	California	Orange County	70,698	75,479	-4,781	-6.3
19	Arizona	Pima County	26,270	31,043	-4,773	-15.4
20	New York	New York County	18,702	22,443	-3,741	-16.7
21	California	Fresno County	44,165	47,757	-3,592	-7.5
22	New York	Suffolk County	24,563	28,009	-3,446	-12.3
23	Texas	Tarrant County	50,899	54,330	-3,431	-6.3
24	Florida	Broward County	32,604	35,907	-3,303	-9.2
25	Texas	Travis County	30,583	33,785	-3,202	-9.5
26	New York	Kings County	31,480	34,601	-3,121	-9.0
27	Hawaii	Honolulu County	8,819	11,936	-3,117	-26.1
28	California	Imperial County	9,766	12,839	-3,073	-23.9
29	Florida	Orange County	28,183	31,062	-2,879	-9.3
30	Colorado	Denver County	13,629	16,492	-2,863	-17.4
31	California	Kern County	41,707	44,399	-2,692	-6.1
32	Virginia	Fairfax County	15,247	17,860	-2,613	-14.6
33	New Mexico	Bernalillo County	20,693	23,298	-2,605	-11.2
34	New York	Nassau County	17,545	20,108	-2,563	-12.7
35	Maryland	Montgomery County	16,380	18,845	-2,465	-13.1
36	Texas	Ector County	8,285	10,720	-2,435	-22.7
37	Arizona	Yuma County	9,784	12,178	-2,394	-19.7
38	Florida	Hillsborough County	28,425	30,808	-2,383	-7.7
39	District of Columbia	District of Columbia	5,318	7,682	-2,364	-30.8
40	North Carolina	Mecklenburg County	14,184	16,495	-2,311	-14.0
41	Florida	Osceola County	11,932	14,084	-2,152	-15.3
42	California	Santa Barbara County	16,143	18,241	-2,098	-11.5
43	New Jersey	Passaic County	15,765	17,858	-2,093	-11.7
44	Massachusetts	Essex County	14,386	16,474	-2,088	-12.7
45	California	Monterey County	20,688	22,761	-2,073	-9.1
46	California	Sacramento County	29,112	31,175	-2,063	-6.6
47	Oklahoma	Oklahoma County	15,085	16,994	-1,909	-11.2
48	Rhode Island	Providence County	12,606	14,499	-1,893	-13.1
49	California	Ventura County	24,985	26,770	-1,785	-6.7
50	Texas	Nueces County	14,756	16,528	-1,772	-10.7
Source: Authors analysis of Census Bureau data.						

We did not produce a similar table showing the counties with the highest coverage rates because many small counties have extremely high (unrealistic) rates. As stated previously, data for individual small counties are probably not reliable.

Table 4 shows another way to look at these county figures by showing the cumulative net undercount for young Hispanic children in the 50 counties with the largest net undercount numbers. Data in Table 4 indicates undercounted young Hispanic children in the 2020 Census were highly concentrated in a relatively small number of counties.

There was a total of 267,895 undercounted young Hispanic children in the top 50 countries. Collectively, the 50 counties shown in Table 4 account for more than two-thirds (267,895/372,661 = 71 percent) of the nationwide net undercount of young Hispanic children in the 2020 Census. In fact, the top ten counties account for more than a third (138,655/372,661 = 37%) (37 percent) of all undercounted young Hispanic children in the 2020 Census.

Table 4. Cumulative Net Undercount in 50 Counties with Largest Numeric Undercount of Young Hispanic ChidIren in the 2020 Census

Rank	State		Numeric Difference (census - PEP)	Cumulative Total	Cumulative Total as a Percent of Nationwide Net Undercount of Young Hispanic Chiildren in the 2020 Census
1	California	Los Angeles County	-26,811	-26,811	-7.1
2	Texas	Harris County	-20,073	-46,884	-12.5
3	Florida	Miami-Dade County	-14,848	-61,732	-16.5
4	Arizona	Maricopa County	-14,564	-76,296	-20.3
5	Texas	Dallas County	-13,254	-89,550	-23.9
6	California	San Diego County	-12,133	-101,683	-27.1
7	Texas	Hidalgo County	-11,957	-113,640	-30.3
8	Texas	Bexar County	-9,235	-122,875	-32.7
9	New York	Bronx County	-8,203	-131,078	-34.9
10	California	Riverside County	-7,577	-138,655	-37.0
11	California	San Bernardino County	-6,681	-145,336	-38.7
12	Texas	El Paso County	-5,947	-151,283	-40.3
13	Pennsylvania	Philadelphia County	-5,553	-156,836	-41.8
14	Texas	Cameron County	-5,318	-162,154	-43.2
15	Nevada	Clark County	-5,309	-167,463	-44.6
16	Texas	Webb County	-5,221	-172,684	-46.0
17	New York	Queens County	-5,138	-177,822	-47.4
18	California	Orange County	-4,781	-182,603	-48.7
19	Arizona	Pima County	-4,773	-187,376	-49.9
20	New York	New York County	-3,741	-191,117	-50.9
21	California	Fresno County	-3,592	-194,709	-51.9
22	New York	Suffolk County	-3,446	-198,155	-52.8
23	Texas	Tarrant County	-3,431	-201,586	-53.7
24	Florida	Broward County	-3,303	-204,889	-54.6
25	Texas	Travis County	-3,202	-208,091	-55.5
26	New York	Kings County	-3,121	-211,212	-56.3
27	Hawaii	Honolulu County	-3,117	-214,329	-57.1
28	California	Imperial County	-3,073	-217,402	-57.9
29	Florida	Orange County	-2,879	-220,281	-58.7
30	Colorado	Denver County	-2,863	-223,144	-59.5
31	California	Kern County	-2,692	-225,836	-60.2
32	Virginia	Fairfax County	-2,613	-228,449	-60.9
33	New Mexico	Bernalillo County	-2,605	-231,054	-61.6
34	New York	Nassau County	-2,563	-233,617	-62.3
35	Maryland	Montgomery County	-2,465	-236,082	-62.9
36	Texas	Ector County	-2,435	-238,517	-63.6
37	Arizona	Yuma County	-2,394	-240,911	-64.2
38	Florida	Hillsborough County	-2,383	-243,294	-64.8
39	District of Columbia	District of Columbia	-2,364	-245,658	-65.5
40	North Carolina	Mecklenburg County	-2,311	-247,969	-66.1
41	Florida	Osceola County	-2,152	-250,121	-66.7
42	California	Santa Barbara County	-2,098	-252,219	-67.2
43	New Jersey	Passaic County	-2,093	-254,312	-67.8
44	Massachusetts	Essex County	-2,088	-256,400	-68.3
45	California	Monterey County	-2,073	-258,473	-68.9
46	California	Sacramento County	-2,063	-260,536	-69.4
47	Oklahoma	Oklahoma County	-1,909	-262,445	-69.9
48	Rhode Island	Providence County	-1,893	-264,338	-70.5
49	California	Ventura County	-1,785	-266,123	-70.9
50	Texas	Nueces County	-1,772	-267,895	-71.4

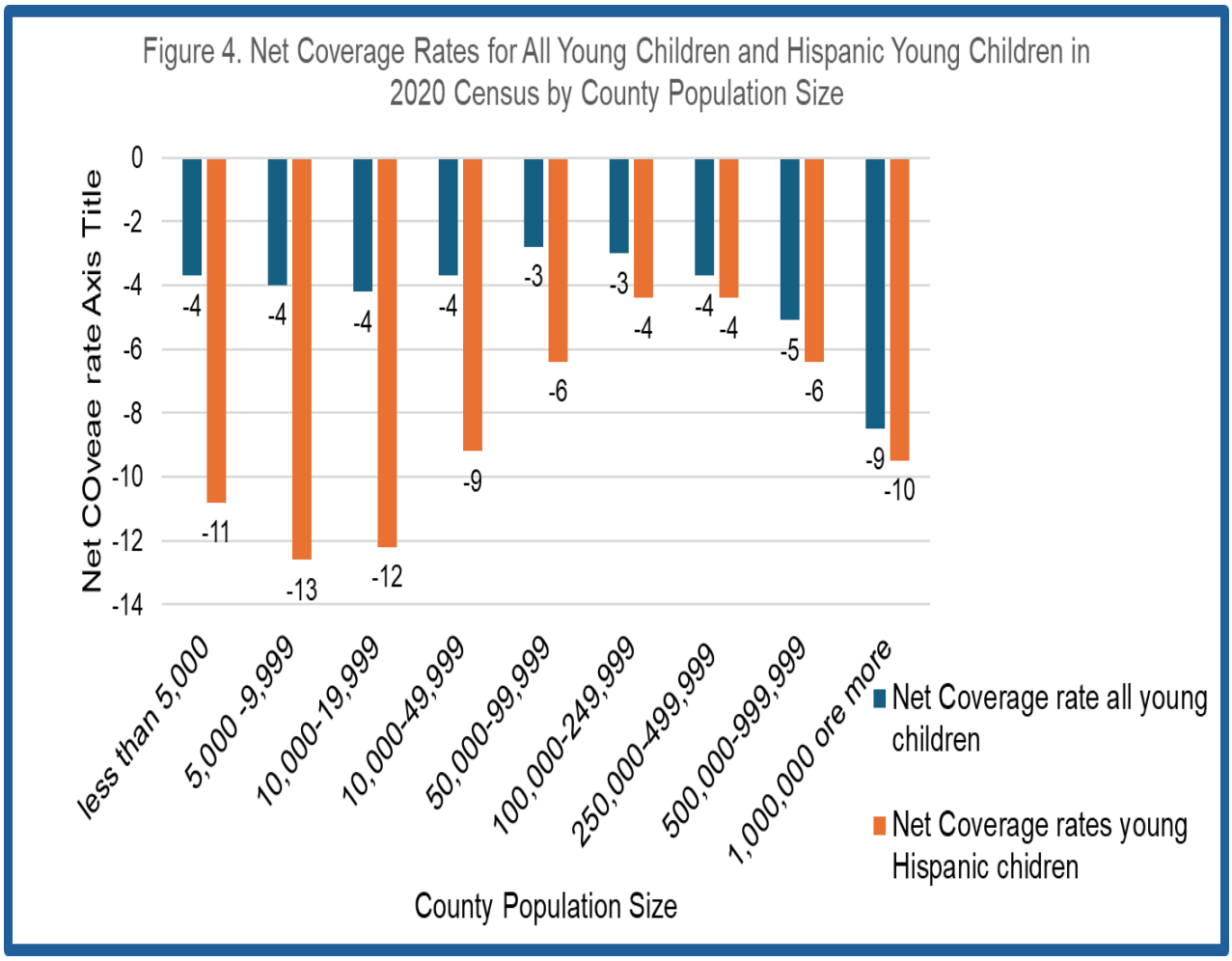
Source: Authors analysis of Census Bureau data.

Young Hispanic Net Undercount Rates and Population Size of County

The correlation between overall total population of a county and net coverage rates for young Hispanic children is -0.02, which is extremely low and not statistically significant. But the low correlation is likely due to a large number of small counties where net coverage rates are not very accurate or reliable. Looking at groups of counties by population size is a better way to see the relationship between county population size and coverage of young Hispanic children.

O'Hare (2023) shows the net undercount rate in the 2020 Census is 8.5 percent for all children in counties with a population over one million compared to net undercount rates of 2.8 percent to 5.1 percent in counties with total populations less than 500,000. But that is not the case with young Hispanics.

Figure 4 shows net coverage rates for young Hispanic children in nine county population size categories compared to the net collective coverage rates for all young children in those population size groups.



The net undercount rate for the largest counties (1 million or more) is 10 percent for young Hispanic and 9 percent for all young children. In other words, young Hispanic children and all young children are similar in terms of having high net undercount rates in the largest counties.

In smaller population size categories, however, there are marked differences between the collective coverage rates for young Hispanics and those for all children. For young Hispanic children, the net collective undercount rates are higher for counties under 20,000 total population than they are for counties of one million or more. For all

counties under 5,000 total population the net undercount rate for all children was 4 percent but it was 11 percent for young Hispanic children.

The high undercount rates for small counties may be due to many relatively small rural counties in Southwest which have a lot of young Hispanic children, and a lot of the characteristics associated with census undercounts. For example, the “colonias” along the Texas-Mexican border have high net undercounts for young children. A study (Castellanos-Sosa and O’Hare 2023) of young child undercounts in Texas counties concluded, “Of the 14 Texas counties on the Mexican border, 11 have high net child undercounts in the terms of rates, numbers, or both.”

Further analysis of this issue is beyond the scope of this study, but the issue deserves additional analysis as plans are being developed for the 2030 Census.

Analysis by Region

Table 5 shows the distribution of net young Hispanic child coverage by Census region based on accumulation of county data.

Table 5 Coverage for Young Hispanic Children in the 2020 Census by Region

Region	Sum of Census Total Hispanics age 0-4	Sum of Total Hispanic age 0-4 PEP	Numeric Difference (Census - PEP)	Percent Difference
Northeast	580,500	633,301	-52,801	-8.3
Midwest	513,110	512,028	1,082	0.2
South	1,772,515	1,940,617	-168,102	-8.7
West	1,721,634	1,874,474	-152,840	-8.2
Total	4,587,759	4,960,420	-372,661	-7.5

Source: Authors analyses of Census Bureau data

The Midwest region stands out in this Table because young Hispanic children in the Midwest have a small overcount. (+ 0.2 percent) while the net undercount rates in

the other three regions are 8.2 percent or higher. Note there is a relatively small number of young Hispanic children in the Midwest. Based on the Vintage 2020 population estimates from the Census Bureau, only 10 percent of the national number of young Hispanics lived in the Midwest.

Analysis by State

Table 6 shows the states ranked by numeric net coverage of young Hispanic children. Table 6 shows there were 41 states (40 state and DC) with net undercount and 10 states with a net overcount of young Hispanic children. This contrasts slightly with the coverages of all young children where every state had a net undercount.

Table 6 is based on the accumulation of county data so it may not be consistent with other state figures since some counties were not included in our analysis. This difference should not have any impact on the broad patterns examined here.

Table 6. States Ranked by Net Coverage of Young Hispanic Children in the 2020 Census				
States	Census Count of Hisapnics ages 0-4	Poulation Estimatse of Hisapnic ages 0-4	Numeric Coverage Number (Census-PEP)	Net Coverage Rate
Texas	867,837	971,751	-103,914	-10.7
California	1,076,144	1,162,984	-86,840	-7.5
Florida	327,168	355,548	-28,380	-8.0
New York	255,638	282,792	-27,154	-9.6
Arizona	171,801	197,768	-25,967	-13.1
North Carolina	97,823	109,897	-12,074	-11.0
Pennsylvania	89,735	99,683	-9,948	-10.0
New Mexico	67,884	76,400	-8,516	-11.1
New Jersey	143,601	151,144	-7,543	-5.0
Colorado	97,267	104,688	-7,421	-7.1
Washington	94,721	102,112	-7,391	-7.2
Massachusetts	68,472	75,346	-6,874	-9.1
Nevada	69,825	75,805	-5,980	-7.9
Georgia	93,683	99,426	-5,743	-5.8
Hawaii	12,986	18,559	-5,573	-30.0
Maryland	63,212	67,605	-4,393	-6.5
Oklahoma	46,336	49,668	-3,332	-6.7
Virginia	76,886	79,498	-2,612	-3.3
District of Columbia	5,318	7,682	-2,364	-30.8
Nebraska	23,811	25,850	-2,039	-7.9
Wisconsin	40,811	42,764	-1,953	-4.6
Rhode Island	14,482	16,410	-1,928	-11.7
South Carolina	30,624	32,347	-1,723	-5.3
Oregon	49,239	50,757	-1,518	-3.0
Utah	45,284	46,751	-1,467	-3.1
South Dakota	4,329	5,532	-1,203	-21.7
Delaware	9,172	10,199	-1,027	-10.1
Alaska	4,743	5,744	-1,001	-17.4
Mississippi	9,476	10,456	-980	-9.4
North Dakota	3,842	4,605	-763	-16.6
Iowa	21,418	22,016	-598	-2.7
Montana	4,182	4,746	-564	-11.9
Tennessee	45,611	46,166	-555	-1.2
Alabama	25,421	25,917	-496	-1.9
Wyoming	5,337	5,815	-478	-8.2
Louisiana	26,811	27,286	-475	-1.7
Missouri	27,460	27,586	-126	-0.5
Idaho	22,232	22,345	-113	-0.5
Kentucky	19,680	19,768	-88	-0.4
Arkansas	24,555	24,642	-87	-0.4
Illinois	171,561	171,528	33	0.0
West Virginia	2,907	2,761	146	5.3
Maine	2,274	2,092	182	8.7
New Hampshire	5,137	4,915	222	4.5
Vermont	1,168	919	249	27.1
Minnesota	32,428	31,841	587	1.8
Kansas	35,875	35,249	626	1.8
Ohio	49,579	48,868	711	1.5
Michigan	50,239	48,097	2,142	4.5
Indiana	51,804	48,092	3,712	7.7
Total	4,587,829	4,960,420	-372,591	-7.5
Source: Authors analysis of Census Bureau data.				

Texas (103,914) and California (86,840) have the largest numeric net undercount of young Hispanic children by far. There are four additional states (Florida, New York, Arizona, and North Carolina) with net young Hispanic numeric undercounts ranging from 12,074 to 28,380. The top six states accounted for 76 percent of the total net undercount of young Hispanic children in the 2020 Census.

Table 7 shows ten states that had net undercounts for all young children but a net overcounts of young Hispanic children. It is not clear to us why these states had undercounts for all of young children but net overcounts of young Hispanic children.

Note six of these counties are in the Midwest. That is consistent with the regional analysis which shows the Midwest region had an aggregate net overcount of young Hispanic children. Three of the states are in New England (Maine, New Hampshire, and Vermont).

It is not clear why the count of young Hispanic is so much more accurate in the Midwest and some New England states. However, the overcount of young Hispanic children in the Midwest and New England deserves additional study. If there were identifiable steps taken in the 2020 Census in the Midwest and New England that accounted for a more accurate count of young Hispanic children, they may hold clues about what should be done in the 2030 Census to get a more accurate count of all young Hispanic children

It would be useful for someone to take a closer look at county coverage rates in Midwestern and New England states to determine if they did something different than other states to achieve a net overcount of young Hispanic children.

Table 7. Ten States Where There Was a Net Overcount of Young Hispanic Children but a Net Undercount of All young Children in the 2020 Census									
	HISPANICS					ALL CHILDREN			
States	Census Count of Hispanics ages 0-4	Population Estimates of Hispanic ages 0-4	Numeric Coverage Number (Census-PEP)	Net Coverage Rate		Census Count all children ages 0-4	Population Estimates all Children ages 0-4	Numeric Coverage Number (Census-PEP)	Net Coverage Rate
Illinois	171,561	171,528	33	0.0		738,282	705,616	-32,666	-4.4
Indiana	51,804	48,092	3,712	7.7		420,162	408,828	-11,334	-2.7
Kansas	35,875	35,249	626	1.8		185,068	179,446	-5,622	-3.0
Maine	2,274	2,092	182	8.7		64,000	61,477	-2,523	-3.9
Michigan	50,239	48,097	2,142	4.5		565,801	548,875	-16,926	-3.0
Minnesota	32,428	31,841	587	1.8		349,568	340,357	-9,211	-2.6
New Hampshire	5,137	4,915	222	4.5		63,389	61,480	-1,909	-3.0
Ohio	49,579	48,868	711	1.5		693,573	666,434	-27,139	-3.9
Vermont	1,168	919	249	27.1		28,561	28,555	-6	0.0
West Virginia	2,907	2,761	146	5.3		92,944	89,207	-3,737	-4.0
Source: Authors analysis of Census Bureau data.									

Summary and Conclusions

This paper is the first to investigate how the coverage of young Hispanic children in the 2020 Census varied by county, and it contributes to the literature on the count of Hispanics in the U.S. Census.

The study found that there was considerable variation in the coverage rates for young Hispanic children across counties. However, most of the counties (63 percent) had a net undercount of young Hispanic children, and the vast majority (86 percent) of young Hispanic children resided in a county with a net undercount of young Hispanic children.

Net undercounts are widespread, with 41 of the 51 states (and DC) having a net undercount of young Hispanic children. This contrasts slightly with the net coverage of all young children in the 2020 Census, in which every state had a net undercount (U.S. Census Bureau 2024c).

With a slight overcount, the Midwest region was an outlier regarding census coverage of young Hispanic children with a light overcount. This raises questions about why the results are so different from the rest of the country.

The net undercount of young Hispanic children is concentrated in a relatively small number of states and counties. The study found that just six states account for 76 percent of the net undercount of young Hispanic children, and the 50 counties with the highest net young Hispanic child undercount numbers account for 72 percent.

There are high net undercount rates in counties of a million or more people for both young Hispanic children (10 percent) and all young children (9 percent). However, for small counties (those under 20,000 total population size), young Hispanic children have much higher net undercount rates compared to all children in smaller counties.

It is not clear why young Hispanic children have such a high net undercount, but some evidence on this question has emerged.

Census data collected through self-response is generally more accurate than data gathered during the Nonresponse Follow-up (NRFU) phase. (Brown et al., 2019). A recent Census Bureau publication (2024e) found that the 2020 Census return rates for households headed by a Hispanic (58.6 percent) were substantially lower than the return rate for households headed by a non-Hispanic person (81.8 percent).[9]

Research by Quiros and O'Hare (2024) identified several variables that are highly correlated with variation in state-level coverage rates for young Hispanic children, including the state's racial/ethnic composition, some housing measures, variations in family structure and living arrangements, and socioeconomic status. Sorting out the independent effects of all these factors will be difficult.

[9] There is some concern about how return rates were calculated for demographic subgroups compared to the total population. As this paper is being written that issue is unresolved.

The data from the Census Bureau used for this analysis does not distinguish among Hispanic subgroups such as Mexicans, Puerto Ricans, and Cubans. If we could disaggregate coverage of the Hispanic population, differences may help us understand why some Hispanics are missed at a high rate in the Census.

The data shown here raises issues of data equity by focusing on subnational accuracy measures. Some parts of the country have much more accurate data on young Hispanic children than other places in the country. The fact that these figures are tied to trillions of dollars in federal government aid elevates the importance of this variation in quality.

A better understanding of the geographic distribution of the undercount rates for young Hispanic children and factors associated with the undercount of young Hispanic children may help us pinpoint why young children have such a high net undercount rate, determine which young children are most vulnerable to being undercounted, and will better prepare us to reduce this problem in the 2030 Census by focusing outreach efforts more effectively.

Previous U.S. Censuses (1990, 2000, 2010, and 2020) have consistently undercounted Black and Hispanic populations (all ages) (Stempowski, 2023), so the high net undercount of young Hispanic children shown in this paper is consistent with broad research on Census coverage. This is not a new issue. Much work is needed to get an accurate count of young Hispanic children in the 2030 Census. This study will help stakeholders and the Census Bureau focus outreach and targeting in the 2030 Census to help reduce the high net undercount of young Hispanic children.

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