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Los Angeles County 2020 Census Response Rate Falling Behind

11 Percentage Points and a Third of a Million Lower than 2010

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Abstract:

Los Angeles County is facing the unprecedented challenge of completing the 2020 census enumeration, the once in a decade effort to count every American for critically important political, economic and social reasons. On April 30, 2020, the County was about 11 percentage points and a third of a million households behind the 2010 census. The shortfall coincides with the start of the COVID-19 crisis, but several other factors contribute to the problem. This problem is compounded by a major change in the way most residents fill out the census form (from mailing in paper questionnaires in 2010 to answering online in 2020), linguistic and cultural barriers, lack of internet access, and socioeconomic disparities. The net results are systematic and systemic geographic variations in the response rate, with many low-income and minority neighborhoods lagging far behind. The places with the lowest response rates face a gap at least twice as high as for the rest of the county. On average, these low-response places are 29 percentage points behind. To ensure that the residents of Los Angeles County receive fair political representation and just resource allocation, it is vital that stakeholders proactively assess and revamp the enumeration process to minimize the overall undercount and the racial differential undercount.

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[1] Paul Ong is a Research Professor at UCLA School of Public Affairs. Jonathan Ong and Elena Ong are researchers at Ong and Associates, a public-interest consulting firm. Affiliations are for identification purpose only, and authors are solely responsible for the content. We appreciate the input and review from Chhandara Pech and Silvia R. González. Mr. Pech independently assessed the U.S. Census Bureau's 2019 Census Planning Database.

[2] The brief revises a previously published version of this report to correct a mapping error. The original CRRG map (Figure 4) was partially based on the U.S. Census Bureau's 2019 Census Planning Database that had a duplicate record (tract), which contributed to and compounded a misalignment of the information and the geographic shapefile, particularly for the northern part of the county. This error does not change the estimated county response gap nor the overall general pattern of disparities in tract-level response rates and socioeconomic characteristics in the tables. The problem is not just limited to Los Angeles County because we have identified other duplicates for the rest of the country.

Los Angeles County 2020 Census Response Rate Falling Behind

11 Percentage Points and a Third of a Million Lower than 2010

Introduction:

In an April 24, 2020 email blast, the U.S. Census Bureau proudly announced that "The country has reached an important milestone in the 2020 Census. More than half of all the households in the country have responded – that's 77,500,000 households so far!" The response rate for Los Angeles County hit its own halfway mark five days earlier.[3]

Achieving this milestone is important because having a complete count is crucial for political, economic and social reasons. Constitutionally, the decennial census is required so that congressional seats can be reapportioned to account for geographic shifts in the population. The official count is also used for redrawing (a.k.a. redistricting) electoral district boundaries for congressional representatives, state legislators, and local officials. Equally important, the numbers are used for allocating public funds, enforcing laws (particularly voting rights), and understanding the characteristics of the nation's population and housing stock.

Yet, as others have noted, this achievement is less impressive upon closer examination. On April 18, the *New York Times* reported that the COVID-19 crisis had seriously hampered self-reporting, causing the Census Bureau to adjust their timeline and prolong the collection process to counter any shortfalls.[4] Our previous technical brief documented an eleven percentage point gap between the response rates for late April 2010 and late April 2020 at the national level.[5] Translating that into absolute numbers, the 2020 count was behind 6.5 million, and 15 million

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[3] The 2020 response rate was 50.0% on April 19, and 50.3% the following day, https://2020census.gov/en/response-rates.html.

[4] Michael Wines, "After Virus Delays, Census Must Scramble to Avoid Undercount," New York Times, April 18, 2020.

[5] Paul Ong, Jonathan Ong and Elena Ong, "2020 Census Response Rate Falling Behind Over 11 Percentage Points Lower than 2010," UCLA Luskin School of Public Affairs and UCLA Center for Neighborhood Knowledge, April 29, 2020, https://knowledge.luskin.ucla.edu/wp-content/uploads/2020/04/Census-2020-Response-Rate-Falling-Behind-4.29.20.pdf.

when adjusted for the greater total number of households today.[6] That is a sizable deficit, and one that will likely tax the Census Bureau's remaining budget.[7]

The agency itself had already acknowledged the problem as early as March 21, 2020, when the Bureau announced they were rescheduling operations to be completed later than the original deadline.[8] The ending of the "Self-Response Phase" has been extended two weeks from July 31 to August 14 to give households the opportunity to fill out the census form, preferably online. The adjustments are framed and justified as necessary to protect the health of census workers and the public, which is valid and prudent. Nothing, however, was mentioned about the need to extend the timeline because of a lag in census response rate.

Response Slowdown:

The slowdown of responses to the 2020 census materialized during the second half of March. This can be seen by comparing the response rates this year with response rates from a decade earlier. The 2010 census mail response rate (CMRR) is the number of returned forms divided by the total number of addresses from the master address file.[9] The below graph shows that the 2020 rates in Los Angeles County (LAC) were higher than the national 2010 rates prior to March 23, but then fell increasingly further behind.[10] By the end of March, the gap grew to approximately 15 percentage points.[11] There has been some albeit slow progress as the gap

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[6] The Census Bureau had received 84.0 million responses by April 23, 2010, and 77.5 million by April 23, 2010. There were 116.7 million households in 2010, and an estimated 128.6 million households in 2019. Other key reference points for the 2010 enumeration include the following: 54.0% response rate on April 3rd, 70.3 million households; 59.5% response rate on April 10th, 77.3 million households; and 64.6% response rate on April 23rd, 84.0 million households. These figures show that the 2020 enumeration is consistently behind when comparing different dates with similar percentages, different dates with similar absolute counts, and equivalent dates with different response rates and household counts.

[7] This may well be a major problem. See Diana Elliott and Charmaine Runes, "The 2020 Census is underfunded compared with previous enumerations. An Underfunded 2020 Census Puts an Accurate Count at Risk," March 18, 2019, Urban Institute, https://www.urban.org/urban-wire/underfunded-2020-census-puts-accurate-count-risk.

[8] U.S. Census Bureau, "2020 Census Operational Adjustments Due to COVID-19," March 21, 2020.

[9] According to the Census Bureau, the 2010 census mail response rate is compatible to the 2020 response rate. Personal correspondence, April 28, 2020. The authors appreciate the Bureau's staff willingness to engage in a series of email exchanges to clarify and detail the technical details of the 2010 and 2020 response rates. The 2020 response rate is only available publicly starting March 19, 2020.

[10] A much better and more accurate way to measure and track the response gap is to compare the daily LAC response rate against the daily 2010 response rates for comparable dates. Unfortunately, we do not have that latter information. We do have the final 2010 mail return rate for the county as a whole and the final 2010 mail response rates by tracts.

[11] The LAC 2020 rates also lagged behind California's 2020 response rates, although the gap is smaller because California 2020 was also falling short of the national 2010 rates.

has narrowed. By early May, it was approximately 12 percentage points; however, even if this pace can be maintained, it would take many months to catch up.

Another way of understanding the magnitude is comparing the rate for April 30, 2020 response rate and an estimated rate for April 30, 2010. (See Appendix for details on the calculations of county-wide rates.) The difference is about eleven percentage points, which translates into about a third of a million fewer responses than a decade ago.

Figure 1. Census Response Rates
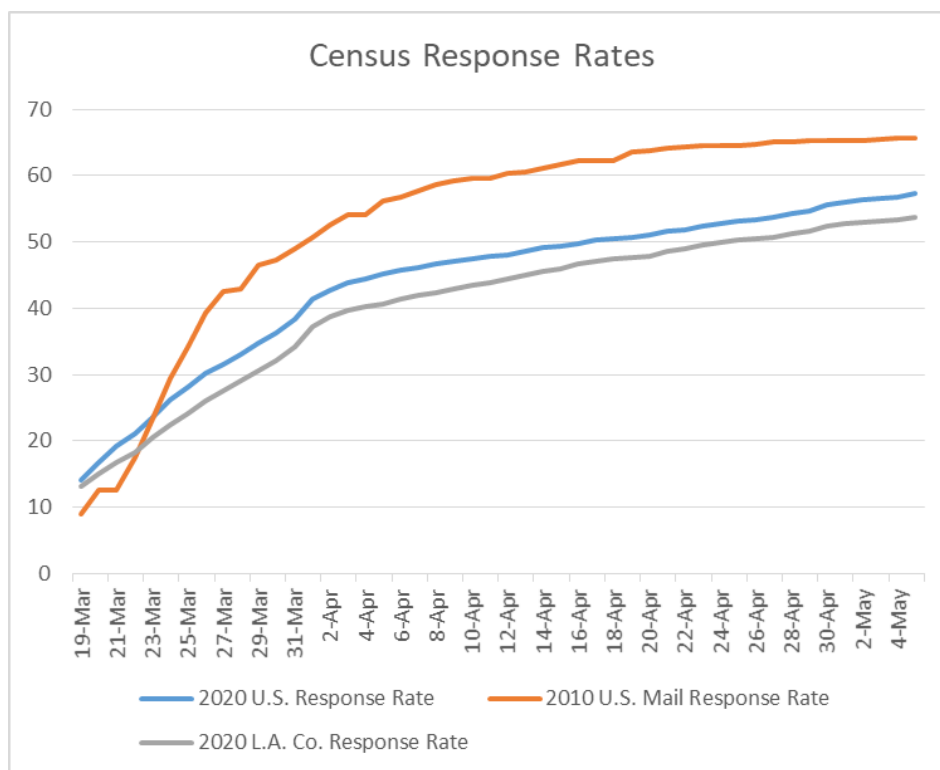
The appearance and growth of the response gap coincides with the COVID-19 crisis. The switching of the trend lines in Figure 1 and the subsequent widening gap coincide with the start and progressive deepening of novel coronavirus cases. Figure 2 reports the 3-day moving average of new COVID-19 cases and deaths, which shows a steady increase throughout the latter part of March. Deaths are a better indicator of the disease's initial course because the information is based on medical reports. COVID-19 cases, on the other hand, are determined by both underlying infections and testing. Testing is biased and incomplete during the early stages of the spread of novel coronavirus, therefore less reliable than death statistics. The first reported COVID-19 death in Los Angeles County occurred March 10th, with no new deaths until

March 19ᵗʰ, when there were eight new ones. The number of new daily deaths peaked in mid-April.

Figure 2. Los Angeles County COVID-19 Cases
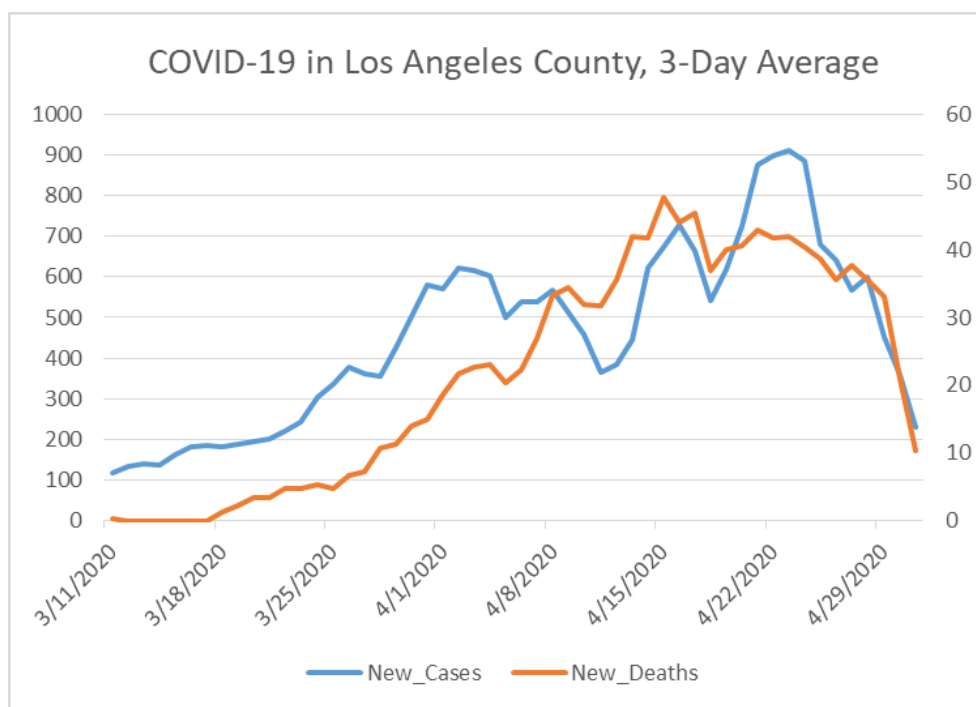
Source: Los Angeles County Department of Public Health
http://dashboard.publichealth.lacounty.gov/covid19_surveillance_dashboard/
Accessed May 3, 2020

The start of mandated shelter-in-place policies are as important in impacting Census 2020 responses. Among the most important are the following: Governor Gavin Newsom, State of California, "Executive Order N-33-20," March 4, 2020; County of Los Angeles, "Health Officer Order for the Control of COVID-19," March 16, 2020; and Mayor Eric Garcetti, Los Angeles City, "Safer at Home Public Order Under City of Los Angeles Emergency Authority," March 19, 2020. One sign of the transformative power of shelter-in-place policies on socioeconomic activities can be seen in the dramatic shifts in travel, as shown in Figure 3, which tracks the volume of vehicle miles traveled (VMT) in Los Angeles County. The three-quarters drop in VMT for both weekdays and weekends reflects a decline in job commutes and travel for nonessential activities.

Figure 3. Volume of Vehicle Miles Traveled, Los Angeles County
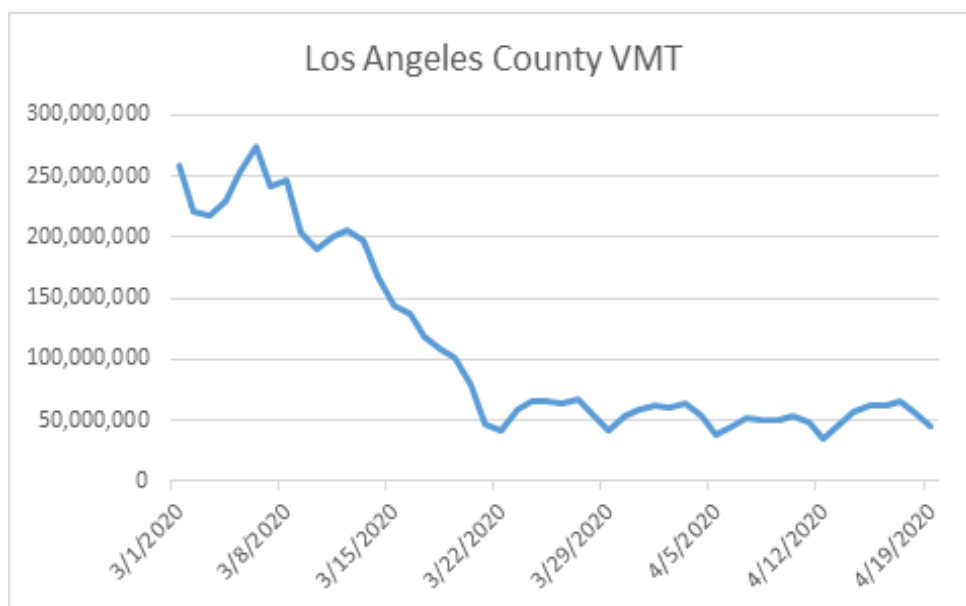
Source: StreetLight, COVID-19 VMT Monitor

Neighborhood Variation in the Census Response Rate Gap

The census response rate gap (CRRG) is not evenly distributed across Los Angeles County. The map below illustrates the geographic disparities. The neighborhood-level (tract-level) gap is defined as the difference between the estimated final 2010 LAC response rate (63.9% percent, which can be considered the desired benchmark) and the tract-level response rate on April 30, 2020.[12]

CRRG(tract i) = 63.9 – [April 30 2020 Census Response Rate(tract i)]

for i from 1 to n

In other words, the CRRG depicts the desired gain that a neighborhood would have to make over the next two months or so. Attaining the gain would enable the tract to attain what was finally achieved a decade ago at the end of the Self-Response Phase for Los Angeles County as a whole. Hypothetically, this will ensure parity among neighborhoods. An alternative is using the estimated the difference between the April 30, 2020 LAC response rate and the estimated 2010 April 30, 2020 county-wide response rate (63.1%). Either approach would produce the same

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[12] The unweighted average of all LAC tracts is 68.9 based on data from the Census Planning Database. Available evidence indicates that the April 30, 2010 LAC response rate should not be qualitatively different than the final 2010 LAC response rate. Daily statistics are only available at the national level, and the response rate was 65.6 on April 30th, and the final rate was 66.1%.

ranking of tracts by percentage shortfall, although the level would be slightly lower for the alternative approach.

The larger the CRRG value, the greater the challenge. The green color indicates that those neighborhoods have already reached the benchmark or very close to doing so.[13] The yellow colored tracts are ones that have a good chance of reaching the benchmark by the end of the extended "Self-Response Phase."

Figure 4. 2020 Census Response Rate Gap (CRRG) by Tracts, Los Angeles County

April_30_LA_V04
CENSUS_TRACTS_2010
-12.8 - 1.8
1.8 - 8.9
8.9 - 15.3
15.3 - 21.8
21.8 - 63.9
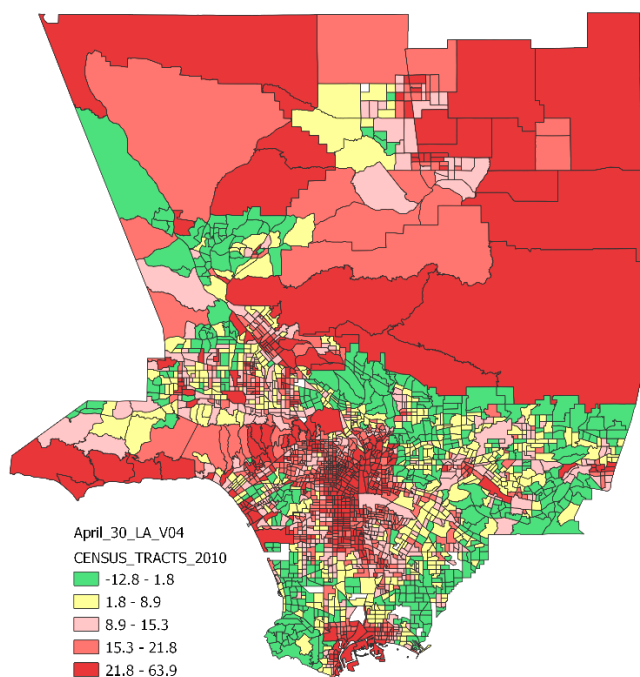
Source: Ong & Associates, calculated from U.S. Census Bureau data.

The neighborhoods in red, however, face considerable challenges in closing the gap. The darker the red, the greater the gap. The darkest red tracts have at least a 20 percentage point gap, making it extremely difficult to meet the county-wide benchmark by August 14th. These areas include, but are not limited to, the central urban cores of cities of Los Angeles and Long Beach, Boyle Heights and East Los Angeles, a majority of South Los Angeles, Koreatown and Hollywood, the Harbor area, and Van Nuys. These neighborhoods were disadvantaged before COVID-19. What is interesting is that there are some affluent tracts that are also in the red category, including those in the Santa Monica Hills and the coastal areas. This may be due to factors other than socioeconomic status, as discussed below.

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[13] The categories are based on unweighted quintiles.

The geographic pattern of the CRRG is similar to that for novel coronavirus cases. Figure 5 maps the age-adjusted COVID-19 cases per 100,000 population (2018 Population Estimates) as reported by the Los Angeles County Department of Public Health (LACDPH). Notable are the high normalized case rates in and around Los Angeles' downtown, the eastern section of the San Fernando Valley, and the Harbor area. These areas contain many low-income minority neighborhoods. The available LACDPH data do not cover Long Beach and Pasadena, each of which has its own department of public health. However, available data indicates that both cities have neighborhoods with some of the highest CRRG values. In Pasadena, the highest gaps are in the eastern part of the city, an area that has a large concentration of African Americans.[14] Within Long Beach, the zip code with the highest rate is 90807,[15] an area that is majority people of color.[16]

Figure 5. COVID-19 Cases, Los Angeles County
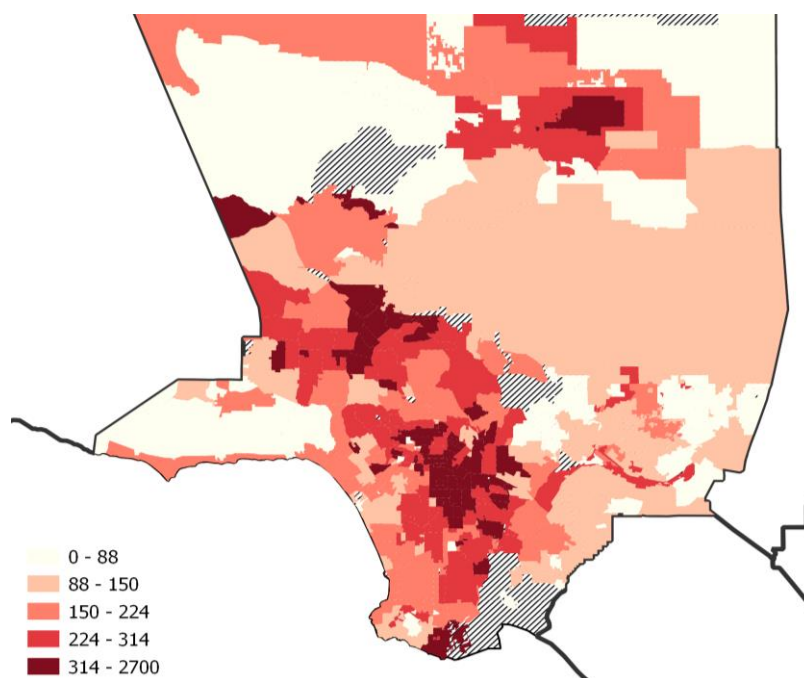
Source: Los Angeles County Department of Public Health
http://dashboard.publichealth.lacounty.gov/covid19_surveillance_dashboard/
Accessed May 3, 2020

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[14] The zip code's normalized case rate was 301.8 cases per 100,000 persons, about twice as high as the rest of the city, https://www.cityofpasadena.net/public-health/covid-19-dashboard/, accessed May 4, 2020.

[15] The two western zip codes had rates of 735 and 739 cases per 100,000, multiple times higher than for the rest of the city, https://app.powerbigov.us/view?r=eyJrIjoiMDNmNWM3ZjgtNjA2OS00YTEyLThhMjUtNTQyMTU1ZWM3Yjk5IiwidCI6IjMxM2YxMWMzLTQyNjgtNGY2YS04ZDNiLWM3ZTY1MDE4M2U3OCJ9, accessed May 4, 2020.

[16] http://www.city-data.com/zips/90807.html.

Other factors are also associated with the CRRG. One that affects the whole county (and most of the rest of the country) is a shift to the internet as the primary mode of data collection. [17] This strategy has had its intended effect, with about 85% of all responses coming in online. This shift, however, has played out differently across the region, placing an extra burden on households without a computer or broadband connection. A second factor is comprised of spatial differences in vacant and seasonal housing. The presence of these units translates into a lower calculated response rate because they have no permanent residents, thus do not add to the numerator in the population enumeration. Finally, there are variations in the locations of hard-to-reach populations[18] – such as people of color, low-income households, limited English speakers, and non-citizens. The association between these factors and the response gap can be seen in the table below.

Table 1 summarizes the neighborhood census-response characteristics of the tracts in the top and bottom fifths (quintiles) of all tracts ranked by CRRG values. All differences are consistent with *a priori* expectations.[19] The average 2020 CRRG value for the tracts in the highest category is 32 percentage points lower than that for the group in the lowest category. Half of the difference appears to be a legacy of a geographic pattern from ten years ago. There is nearly a 16-percentage point difference in the average of 2010 tract-level response rates for the two CRRG neighborhood categories. In other words, history appears to be reproducing and reinforcing itself, with past inequities being graphed onto today's urban landscape.[20]

The statistics in rows three, four and five show a systematic difference the relative roles of online, and mail/phone responses for the current (2020) enumeration. The disparity in CRRG is driven by a huge gulf in online completions. Residents in low CRRG neighborhoods are more than twice as likely to utilize the internet than residents at the other end of the spectrum. Mail and phone responses have the opposite pattern. Unfortunately, this has only a minimal impact

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[17] U.S. Census Bureau, "Innovative Technologies Ensure a Complete and Accurate 2020 Census," November 9, 2017, https://www.census.gov/library/visualizations/2017/comm/technology-2020-census.html. See form at https://my2020census.gov/login.

[18] U.S. Census Bureau, "Census Bureau Releases Estimates of Undercount and Overcount in the 2010 Census," May 22, 2012, https://www.census.gov/newsroom/releases/archives/2010_census/cb12-95.html.

[19] Except where noted, the averages are the mean unweighted value. These variables are correlated with the response-gap rate, and the correlations are statistically significant. A multivariate analysis finds that many of the variables are collinear, but most are statistically significant, *ceteris paribus*.

[20] For basic concept and empirical evidence of how urban spatial inequality is reproduce, see Ong, Paul M., and Silvia R. Gonzalez. *Uneven Urbanscape: Spatial Structures and Ethnoracial Inequality*. Cambridge University Press, 2019. A simple ordinary-least-squares model indicates that between the two decades increased disproportionately more for neighborhoods at the bottom end of the response-rate scale.

on the overall response rate because mail and phone responses comprise a very small proportion of all 2020 responses.

There is a noticeable difference in the Low Response Score (LRS), a measure used by Census Bureau to gauge the propensity of residents to self-respond, with higher values denoting harder-to-count areas.[21] This metric is used to develop strategies and plans for outreach efforts for the 2020 census.[22] As expected, the LRS is negatively associated with the CRRG, but the correlation captures less than half of the variance in CRRG values. In other words, LRS is a useful but only a moderately precise planning tool for identifying hard-to-count neighborhoods. As expected, the response rate is lower in areas with a relatively large number of vacant seasonal, secondary and vacation homes, which include some of the more affluent neighborhoods and coastal communities.

Table 1: Tracts with Lowest and Highest 2020 Census Response Rate Gap

Neighborhood Census Response Characteristics

	Lowest Gap	Highest Gap
2020 Response Rate Gap	-3.2%	28.7%
2010 Response Rate	76.6%	60.9%
2020 April 30 Response Rate	67.1%	35.2%
2020 April 30 Internet Rate	61.7%	28.2%
2020 April 30 Mail Rate	5.4%	7.0%
Original Low Response Score	19.2	31.1
Percent Vacant Units	5.4%	7.4%

Table 2 depicts the sizeable socioeconomic disparities between the two quintiles. This can be seen in the typical household income for the two categories, which vary by a factor of more than two.[23] There are also systematic ethnoracial variations. Non-Hispanic whites and Asian Americans are disproportionately concentrated in low-gap neighborhoods, while non-Hispanic Blacks and Hispanics are over represented in high-gap neighborhoods. The outcomes for Asian Americans are complicated, reflecting the group's internal class and ethnic diversity. While the CRRG is low in the San Gabriel Valley, inner-city Asian American enclaves have a high response

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[21] Chandra Erdman and Nancy Bates, "The Low Response Score (LRS): A Metric to Locate, Predict, and Manage Hard-to-Survey Populations," *Public Opinion Quarterly*, Volume 81, Issue 1, 1 March 2017, Pages 144–156, https://doi.org/10.1093/poq/nfw040.

[22] U.S. Census Bureau, "Planning Database," https://www.census.gov/topics/research/guidance/planning-databases.html.

[23] This is the median value of the tracts' median household income. In other words, half of the tracts have a median household income above the value, and half are below the value. There are minor variations in the statistics depending on what tracts are included and how they are assigned to the categories, but this does not change the qualitative interpretations. The alternative categorization produces slightly greater income and racial disparities

gap. The statistics are consistent with the fact that those with limited English proficiency and those without effective internet connections (broadband) encounter barriers to understanding and completing a census form.[24] The final variable of interest is the disproportionate number of non-citizen residents in tracts with a high response gap. Many in this group are fearful of the census because of the politically controversial and charged effort to include a citizenship question on the enumeration form.

Table 2: Tracts with Lowest and Highest 2020 Census Response Rate Gap

Neighborhood Socioeconomic Characteristics

	Lowest Gap	Highest Gap
Household income (x1,000)	$89.9	$40.7
Percent NH White	38.5%	17.1%
Percent NH Asian	23.4%	9.3%
Percent NH Black	4.7%	10.2%
Percent Hispanic	29.8%	61.6%
Percent Limited English	9.3%	20.4%
Percent Noncitizen	9.8%	24.7%
Percent Without Broadband	21.5%	41.4%

The available evidence from this mid-course assessment should compel immediate action. One glaring possibility is a real and present danger of having one of the least complete census enumerations in LAC's history. It is highly likely that the undercount will disproportionately affect those who were missed in previous decades, primarily low-income people, people of color, and immigrants. The Census Bureau cannot be blamed for COVID-19's dire circumstances that have upended everyone's lives and complicated the 2020 census enumeration. Nonetheless, there is no denying of the urgency to act. The data indicate the 2020 enumeration is on a path to a possible unprecedented sizeable undercount, and a significant differential undercount that will disproportionately hurt disadvantaged communities. In turn, the incomplete count will hurt Los Angeles County's ability to garner its fair share of resources and political representation.

Recommendations

Ensuring a fair and complete final count requires an immediate, rapid and massive mobilization during the final weeks of the Self-Response Phase. This requires community organizations, advocacy groups and foundations to work collaboratively with public agencies and complete-

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[24] The Census Bureau did attempt to offset these barriers through its Census Mail Contact Strategies, which sent out an announcement and a hardcopy form to residents in places with low internet access, and a bilingual announcement to residents in places with a relatively large number of non-English speakers, and a bilingual announcement and hardcopy form to residents in places with both low internet access and a relatively large number of non-English speakers.

count committees to minimize the looming danger of a substantial differential undercount. Increasing the responses online, by mail, or by phone cannot be understated. It essential, and it is critical. There is a benefit for other downstream operations. Closing the gap in census responses during the remainder of the Self-Response Phase will mean conducting fewer in-person interviews.[25] One unexpected and daunting challenge is the geographic correlation of COVID-19 hotspots and places with the lowest census response rates, which will make follow-up interviews riskier and more costly than originally planned. Under these circumstances, priorities must be realigned so that scarce resources are laser focused on evidence-based actions. Strategic spatial targeting will ensure that the most marginalized and hard-to-count people and neighborhoods are reached and included.

As a part of a major revamping of efforts for the next few months, we recommend the following concrete actions with respect to data, monitoring and analysis. We need to better link information on the direct and indirect impacts of COVID-19 in a more integrated neighborhood database. This includes health, economic and social information from traditional sources, administrative records, and crowd-sourced data. Currently, many data sources are incompatible, using different geographic units and scale, definitions, and time periods. Reconciling them is challenging but feasible within reasonable limits. The second recommendation is to move as close to real-time monitoring as possible. It is critical to quickly understand what is happening on the ground so adjustments can be made rapidly. The amount of time left to fairly and accurately complete the 2020 census is very short, too short to wait for the normal slow institutional turnaround time. Finally, we recommend that we quickly reanalyze the data to better understand the current and evolving nature, geographic pattern and trajectory of census response rates. For example, the LRS (Low Response Score) should be updated with new information so stakeholders can better strategize, and prioritize how and where to allocate funds and peoplepower.

While immediate actions will attenuate the response shortfalls and improve coverage, they are not likely to solve the undercount and differential undercount. The looming incomplete and imperfect enumeration is an unfortunate likelihood, a byproduct of one of the nation's worst public-health crises. Collecting the data described above will help us better understand the magnitude and characteristics of the limitations of the official 2020 count.[26] These insights can be used to make adjustments to ensure fair political representation, just resource allocations, and social equity.

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[25] The next major effort involves census workers to conduct interviews with households that have not responded online, by phone, or by mail. The labor-intensive Nonresponse Follow-up Phase has been rescheduled to start May 28, 2020, a delay of about two weeks from original schedule.

[26] The Census Bureau will conduct what is known as the Post-Enumeration Survey, which is designed to identify biases in coverage and the counts. https://www.federalregister.gov/documents/2019/06/05/2019-11705/proposed-information-collection-comment-request-2020-census-post-enumeration-survey-person-interview and https://www.census.gov/coverage_measurement/post-enumeration_surveys/.

Appendix – Response Rate Estimates

The following table summarizes the calculations used to estimate response rates, shortfall or gap in responses rates, and shortfall or gap in the absolute number of respondents. The following formulas are how response and return rates are calculated by the Census Bureau: Response Rate = (Responses)/(Total Mailing); and Return Rate = (Responses)/(Valid Addresses). Based on the trajectory of households in the 2010 to 2018 American Community Survey, we estimate that there will be 3.3 million households in 2020.

Table A1: Observed and Estimated Response Rates

OBSERVED RATES		
(A)	U.S. April 30, 2010 Mail Response Rate	65.3%
(B)	U.S. Final 2010 Mail Response Rate	66.1%
(C)	U.S. April 30, 2010 Mail Return Rate	74.8%
(D)	U.S. Final 2010 Mail Return Rate	75.5%
(E)	LA County 2010 Final Return Rate	73.0%
(F)	LA County April 30, 2020 Response Rate	52.3%
ESTIMATED RATES		
(G) = (E)*[(B)/(D)]	Estimated LA County 2010 final Response rate	63.9%
(H) = (E)*(C)/(D)	Est LA County April 30, 2010 Return Rate	72.3%
(I) = (F) / [(A)/(C)]	Est LA County April 30, 2020 Return Rate	59.9%
(J) = (G)*(A)/(B)	Est LA County April 30, 2010 Response Rate	63.1%
ESTIMATED PERCENTAGE SHORTFALL		
(K) = (H) - (I)	Est LA County April-to-April Return Rate gap	12.4%
(L) = (G) - (F)	Est LA County CRRG from final 2010 Response Rate	11.6%
(M) = (J) - (F)	Est LA County April-to-April Response Rate Gap	10.8%
ESTIMATED ABSOLUTE SHORTFALL (x1,000)		
(N) = (K)*(Est 2020 HHs)	Estimated absolute shortfall, Return Rates	411
(O) = (L)*(Est 2020 HHs)	Estimated absolute shortfall, Response Rates	385
(P) = (M)*(Est 2020 HHs)	Est absolute shortfall, April-to-April Response Rates	359
(Q) = (M)*(2014_18 HHs)	Est of above with lower HHs	358

Sources:

2010 California Complete Count Committee Staff, "California Complete Count Counting 2010 and Planning for 2020 Final Report," June 2012.

U.S. Census Bureau, "Planning Database," https://www.census.gov/topics/research/guidance/planning-databases.html.

U.S. Census Bureau, "Response Rates," https://2020census.gov/en/response-rates.html.

U.S. Census Bureau, "2010 Census Mail Response/Return Rates Assessment Report," June 6, 2012.