Results of the 2021 Greater Hollywood Volunteer Homeless Count

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Abstract

Data from February 25, 2021 censuses of Hollywood and East Hollywood shows that unsheltered homelessness has fallen in those communities by $11\% \pm 9\%$ and $15\% \pm 12\%$, respectively, compared to the 2020 LAHSA Point-In-Time (PIT) count (90% CI). A 30% drop in individuals seen on the street drives this change, reducing the number of identified persons and dwellings in about a third of census tracts. Unsheltered living is thus likely to have declined quantitatively even if the average occupancy of, e.g., tents is updated. Simultaneously, however, 13% of tracts saw at least a doubling in street dwellings. This trend may contribute to qualitative perceptions that the state of homelessness has worsened over the past year, which—given COVID-related reductions in health, hygiene, and social support services are also likely to be accurate. Coordinated Entry System data will reveal whether homelessness has declined in toto or if government initiatives reduced only the portion of people living unsheltered in Greater Hollywood.

1 Introduction

The Los Angeles Homelessness Services Authority (LAHSA) conducts an annual Point In Time (PIT) cen-

sus of the unhoused population of Los Angeles County. These data inform programmatic funding levels, educate residents, undergird legislative efforts, and shape the day-to-day practices of professional and volunteer service providers.

As the official assessment of the scope of one of the most pressing humanitarian issues of our time, the LAHSA Count is invaluable. However, due to disruptions from COVID-19, the unsheltered portion of the 2021 PIT count was cancelled. Since 70% of LA's unhoused residents were unsheltered as of 2020, absent additional efforts, this cancellation would substantially erode our understanding of the state of homelessness following an unprecedented year of economic disruptions and governmental interventions—both of which may have significantly affected the number of unhoused LA County residents.

Greater Hollywood is an epicenter of the homelessness crisis. According to the 2020 Count, the Hollywood and East Hollywood Communities were home to 2203 unhoused residents, 1714 of whom (78%) were unsheltered. This figure corresponds to roughly 5% of LA's homeless population concentrated in an area with 3.5% of its total population. In some areas, 1-in-25 Hollywood residents are unhoused compared to 1-in-100 citywide.

While the above statistics are tragic, Hollywood is

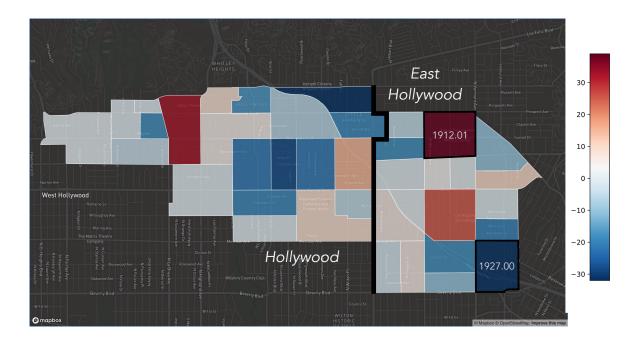


Figure 1: The 2021 volunteer count covered Greater Hollywood, comprising the officially recognized LAHSA Hollywood and East Hollywood Continua of Care. The former stretches from Laurel Canyon Blvd to Western Ave, the latter from Western to Hoover Ave. Hollywood is bounded to the north and south respectively by Franklin and Melrose Aves, with East Hollywood bounded by Hollywood Blvd and Beverly Ave. Hollywood comprises 21 census tracts; East Hollywood 18.

also marked by large and increasingly formalized coalitions of service providers, business leaders, residents, and governmental entities dedicated to humanely ending homelessness in their community. Given the capacity of the above organizations and individuals, and given the importance of the annual PIT count in educating local residents, funders, and legislators, Hollywood decided to proceed as a collective with an unsponsored grassroots PIT count in 2021.

This document describes the methodology and findings of that count, which took place on Thursday, February 25, 2021. Section 2 describes the volunteer training, data acquisition, and analysis protocols. Section 3 presents estimates of the unsheltered populations in the Hollywood and East Hollywood Communities and contextualizes those findings in terms of the 2020 LAHSA results. Section 4 describes cross-checks, provides some interpretation, highlights areas for further study, and reveals where quantitive findings may drive qualitative impressions among residents as to the "felt" state of the crisis. Section 5 summarizes. Additional information can be found in the Appendix, including a table of tract-level results in each of the survey's 39 US Census tracts. All data are available at website.

2 Methodology

2.1 Data Acquisition

The count was based out of The Center at Blessed Sacrament ("The Center"), a major service provider in Hollywood. All volunteers reported and returned to this location as they would a LAHSA community hub in the past. Training was performed offsite, however, volunteers never left their vehicles, and the majority of surveying occurred between 7:00 PM and 10:00 PM.

The count covered the 39 US Census tracts constituting the LAHSA-defined Hollywood and East Hollywood Communities (21 and 18 tracts, respectively). It did not recognize census tract "splits"—e.g., "1905.10a"—which modified of the definition of Hollywood to include all of tract 1905.10 and East Hollywood to include all of tract 1913.01. Since 2016, tract 1905.10b has never hosted more than 7 unsheltered people abd 1913.01a never more than 15 people. As such, these modifications do not affect community-level results significantly. Figure 1 shows the count footprint.

All tracts were vetted by outreach professionals from The Center prior to assignment. Tracts deemed especially challenging—e.g., due to their proximity to freeway onramps/peripheries—were reserved for professional counting teams. Vetting produced 9 such tracts, which were surveyed by personnel from The Center and Covenant House circa 3:00 PM on 25 February. The remaining 30 tracts were divided among the volunteer vehicle-based teams and surveyed beginning at 7.00 PM. With the exception of one tract in East Hollywood, teams were restricted to one or the other community, making the community-level results nearly independent. Cross-comparisons therefore serve as data quality indicators (Section 4). Table 1 records which tract was counted by which kind of team.

Thirty-two volunteer teams participated in the count, which was limited to existing "pods" of two to three people to minimize the possibility of COVID transmission. Singlet volunteers were admitted but remained on-site to assist with traffic control and material distribution. All participants wore personal protective equipment and maintained social distancing when appropriate.

Counting followed 2020 LAHSA PIT protocols to the greatest extent possible. Each volunteer team was assigned two tracts and comprised at least a Driver and a Counter. Three-person teams included a Navigator, as well. If present, the Navigator directed the Driver while the Counter tallied unhoused individuals/dwellings. In two-person teams, the Counter doubled as the Navigator. Training emphasized techniques aimed at reducing Counters' cognitive loads to minimize counting errors, e.g., covering interior streets in a serpentine pattern before circling the tract border. Teams were instructed to count both sides of interior streets but only interior sides of border streets as described in the official 2020 PIT training video.

All teams were deployed to their tracts by roughly 7:30 PM and returned by 9:55 PM.

Upon arriving at The Center, organizers provided each team a clipboard containing:

- two tract maps;
- two tally sheets;
- one 1-page training summary with a contact number for field issues.

See Appendix for examples.

The tally sheets were the data acquisition tool. These contained separate columns for each of the nine categories of unhoused individuals/dwellings recognized in the 2020 LAHSA PIT count:

- 1. adults (ages ≥ 25);
- 2. transition age youths ("TAY," 18–24);
- 3. unaccompanied minors;

- 4. families (at least one adult with at least one minor);
- 5. cars;
- 6. vans;
- 7. RVs;
- 8. tents;
- 9. makeshift structures.

The dwelling classes—Items 5–9—are treated differently than the individual classes in the analysis, and are hereafter referred to by their acronym, "CVRTM," when appropriate. Adults+TAY may also be combined into "Persons" (P). No families or unaccompanied minors were identified.¹

Upon returning, Counters verbally read their results to organizers, who entered them into a google form. The organizer read back the results for confirmation before submitting the form and recovering the hand-written tallies from the volunteers.

Once all materials were collected, the organizers convened to cross-check the electronic records—a google sheet automatically generated by the google form responses—with the physical tally sheets and identify any uncounted areas. None of the latter were found that required follow-up. Any disagreement between electronic and paper references was cross-checked and corrected to the paper tally. All data are available at website.

Given turnout, every volunteer tract was counted by at least two teams, with four tracts counted in triplicate. Beyond increasing the accuracy of the count, repeat measurements aid the understanding of counting errors (Sections 2.3) and provide robustness—one tally was uninterpretable, leaving only the result from the other team on that tract.

All told, the data set comprises 37 pair-wise volunteer measurements—29 duplicates + 4 triplicates (=8 additional pairs)—one singly-counted volunteer tract estimate, and nine unique professional assessments. The latter comprise about 20% of tracts in both communities and roughly 43% of the total individuals and dwellings counted. Year-on-year trends are consistent between volunteer- and professionally counted tracts (Section 4).

¹ One potential unaccompanied minor was reported in tract 1912.01 but could not be confirmed by outreach personnel dispatched to that location. One potential family was also reported dwelling in a van in tract 1899.05 that could also not be confirmed. The upper limits for these categories (3 each at 95% confidence) capture this uncertainty, but their raw counts are set to zero.

Table 1: Tract-level Unsheltered Population Summary

Tract	Community	Countera	Passes ^b	Median Est.	90% CI
				[people]	[people]
1898.00	Hollywood	Vol	3	6	0–15
1899.02	Hollywood	Vol	3	18	12-24
1899.03	Hollywood	Vol	2	0	0-12
1899.04	Hollywood	Vol	2	18	11-25
1899.05	Hollywood	Vol	2	19	9-30
1901.00	Hollywood	Vol	2	88	75-102
1902.01	Hollywood	Vol	2	21	13-29
1902.02	Hollywood	Vol	2	30	20-40
1903.01	Hollywood	Pro	1	74	54-96
1905.10	Hollywood	Pro	1	34	22-46
1905.20	E. Hollywood	Vol	2	12	6-18
1907.00	Hollywood	Vol	2	110	93-127
1908.01	Hollywood	Vol	2	63	50-76
1908.02	Hollywood	Pro	1	71	54-90
1909.01	Hollywood	Pro	1	55	39-71
1909.02	Hollywood	Vol	3	6	0-17
1910.00	Hollywood	Pro	1	169	140-201
1911.10	E. Hollywood	Vol	2	9	2-15
1911.20	E. Hollywood	Pro	1	66	48-85
1912.01	E. Hollywood	Vol	2	55	44-68
1912.03	E. Hollywood	Vol	2	26	14-38
1912.04	E. Hollywood	Vol	2	6	0-16
1913.01	E. Hollywood	Vol	2	31	22-42
1913.02	E. Hollywood	Vol	2	23	15-30
1914.10	E. Hollywood	Vol	2	20	13-28
1914.20	E. Hollywood	Vol	2	24	16-32
1915.00	E. Hollywood	Vol	2	29	21-38
1916.10	E. Hollywood	Pro	1	48	31-68
1916.20	E. Hollywood	Pro	1	17	6-30
1917.10	Hollywood	Vol	2	21	14-29
1917.20	Hollywood	Vol	3	21	12-31
1918.10	Hollywood	Vol	2	24	14-34
1918.20	Hollywood	Vol	2	16	10-23
1919.01	Hollywood	Vol	2	60	49-72
1925.10	E. Hollywood	Vol	2	12	4-21
1925.20	E. Hollywood	Vol	1	14	1-28
1926.10	E. Hollywood	Vol	2	7	1-14
1926.20	E. Hollywood	Vol	2	18	9-26
1927.00	E. Hollywood	Pro	1	129	96–167
All			72 ^c	1494	1342–1657

^aVolunteer vs. professional surveyor; ^bindependent tract counts; ^creflects one tally rejected during quality control.

2.1.1 Volunteer Training

Teams underwent mandatory, $\sim\!30$ minute Zoom-based training sessions before arriving for the count. Each participant was also required to watch the official 2020 LAHSA PIT training video.

The training covered the motivation for the count, an overview of the survey geography, team roles, and examples of unhoused dwellings. Except in the case of people standing next to tents—as described in the 2020 LAHSA video—volunteers were instructed to count CVRTM and individuals separately and not to try to estimate how many people might live in or be associated with a specific dwelling. This ensured that results could

be analyzed as a function of the CVRTM weights, which may change with future information.

Volunteers were primed only with min/max estimates of tract-level individual+dwelling counts ("0–120") and the likelihood of encountering unaccompanied minors or families ("very unlikely") or TAY ("some tracts especially in Hollywood"). These statements were informed by the 2020 LAHSA PIT results. No other prior was established. The training presentation is available at: https://drive.google.com/file/d/1xFrtU26yjPuiUv9KHZ3Uj2_sAoT1ClGo/view?usp=sharing.

2.2 Data Analysis

The data form a 9×73 array containing the tract-level tallies for each unhoused individual/dwelling class. Data reduction involves simply averaging repeat counts of the same tract, associating the latter with the Hollywood or East Hollywood community, and weighting by the CVRTM mean occupancies. We produce 10,000 realizations of the final dataset incorporating random perturbations of the counts and weights according to their uncertainties (see below). The resulting final population inference is a $9 \times 10000 \times 39$ array that may be split and summed to provide aggregate, tract, or category-level population estimates and uncertainties.

Our baseline result incorporates the 2020 SPA-4/CD13 CVRTM weights, which underpin the latest LAHSA Community Summaries. However, we recognize that COVID-related activities such as tent distribution efforts may have changed these weights in reality. We cannot reassess all of them and encourage robust efforts to do so. However, at least one survey of tent-dwellers in Hollywood suggests the tent weight, *T*, has not changed significantly. We analyze the impact of adopting three other reasonable CVRTM choices in Section ?? (Table 2), but they do not significantly affect our findings.

2.2.1 Monte Carlo Population Inferences

We wish to infer the true unsheltered population in Hollywood and East Hollywood as of 25 February. We do so by constructing probability density functions (PDFs) describing the likelihood of encountering a given number of unsheltered people in those communities as constrained by our PIT count data. To accomplish this, we must model three known uncertainties: (1) errors in the visual tallies, (2) deviations of the CVRTM weights

from their quoted means, and (3) the intrinsic background rate of persons/dwellings in areas in which none were actually sighted. Items (1) and (3) reflect how our PIT tally might change if performed at a different (but comparable) time or by different teams. Item (2) reflects how the mean occupancy of CVRTM structures in our survey area might differ from the mean occupancy in the geography in which the weights were defined.

We model (1) and (2) as independent random draws from Gaussian distributions with standard deviations of \sqrt{n} and σ , respectively, where n is the raw PIT tally and σ is the standard error on the respective CVRTM weight, w, quoted by LAHSA. As such, the i-th estimate of the true number, N, of people belonging to the j-th unsheltered class in any tract is:

$$N_{i,j} = \left[n_j + \mathcal{G}_i(0, \sqrt{n_j}) \right] \times \max[\mathcal{G}_i(w_j, \sigma_j), 1], \quad (1)$$

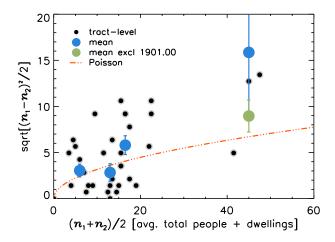
where $\mathscr{G}(\mu, \Sigma)$ is a Gaussian random number with mean μ and standard deviation Σ . If more than one team counted a given tract, n is replaced by the average of their tallies and the attendant counting error is divided by the square root of the number of teams. If no members of the j-th unsheltered category were observed, $\sqrt{n_j}$ is replaced in the first term by that category's estimated background rate, $\sigma_j^{\rm bkg}$, which we discuss in the next section.

The final output probability distribution functions (PDFs) are based on 10,000 realizations of Equation 1. Weights for adults and TAY are fixed to unity, such that $(w, \sigma) \equiv (1,0)$ for all trials and uncertainties reflect only counting errors. One potential family and one potential unaccompanied minor were reported, but not confirmed. We therefore set those entires to zero and infer only upper limits.

We place a floor on the CVRTM mean occupancies at 1 person per dwelling; i.e., we assume that the *mean* person does not own more than one dwelling. This is not to say no one may own more than one, just that such a statement is never representative. This choice induces a mild asymmetry in our global PDFs but does not significantly affect inferences.

2.2.2 Null Entries and Background Rates

Often, no persons or dwellings of a specific category are observed in a given census tract. Due to shot noise, however, these data are consistent with non-zero values for the true population. The Monte Carlo PDF reconstruction thus allows all such entries to take non-zero values based on an assumed background rate, $\sigma_i^{\rm bkg}$.



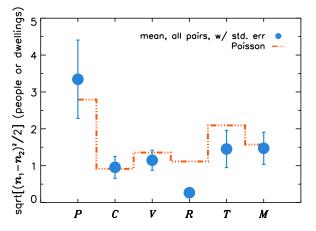


Figure 2: Duplicate tract (top) and category (bottom) count comparisons. Orange points at top exclude tract 1901.00, which is a significant outlier.

Ideally, that rate would be based on category variations in similar tracts defined by some independent criteria. Sufficient data from, e.g., the US Census may enable such an exercise, but it is beyond the scope of this analysis. Instead, we adopt a noise floor based on the counts expected if all elements of a given category were distributed evenly across all tracts. Hence:

$$\sigma_j^{\text{bkg}} \equiv \sqrt{\frac{1}{39} \sum_{\text{tracts}} n_j},$$
 (2)

where n_j are the raw counts in that category as defined in Equation 1.

While oversimplistic (Section 4.1), this method works for any category, j, for which there is at least one individual/dwelling observed in any tract. However, for categories for which this is not the case—unaccompanied minors and families, in the case of Hollywood—we set $\sigma_{j,\min}$ to the lowest non-zero value of the other

Table 2: Greater Hollywood 2021 PIT Unsheltered Data and Population Estimates

	С	V	R	T	M
SPA4/CD13	1.51 ± 0.25	1.77 ± 0.42	1.42 ± 0.28	1.48 ± 0.11	1.68 ± 0.31
2021 T	_	_	_	1.39 ± 0.14	_
2021 T w/ unocc	_	_	_	1.51 ± 0.24	_
SPA4	1.38 ± 0.11	1.68 ± 0.22	1.32 ± 0.15	1.45 ± 0.06	1.64 ± 0.16

CVRTM weights tested. Dashes denote identical values to the entry above. Bold denotes baseline scenario incorporating the 2020 SPA4/CD13 CVRTM weights underpinning the latest official Hollywood and East Hollywood Community Summaries.

categories (corresponding to TAY). The adopted backgrounds are thus:

$$\sigma_{i,\min} = \{3.2, 0.4, 0.4, 0.9, 1.3, 1.1, 2.8, 2.5, 0.4\} \quad (3)$$

adults, TAY, unaccompanied minors, cars, vans, RVs, tents, makeshifts, and families per tract.

Note that the above numbers are not added to null entries, only random draws from normal distributions of that width. This treatment is somewhat arbitrary, but we employ it symmetrically—per-tract category totals can be <0—so it does not bias the final inference. Instead, it sets the upper limits of intrinsically low-frequency categories and inflates aggregate uncertainties.

2.3 Duplicate Counts

Each volunteer tract in both communities (30) were assigned to at least two independent counting teams. Four tracts additionally received a third pass. Pass 1 was organized numerically by tract number. Pass 2 paired projected high-population tracts with a nearby tract. Pass 3 was the same as Pass 1 with tract pairings presented in reverse order (such that teams deployed simultaneously would likely start in different tracts).

Results for one of the two teams assigned to tract 1925.20 could not be interpreted, making it the only volunteer tract with one population estimate.

Figure 2 shows the intercounter comparisons of raw counts (people+dwellings) at the tract and category levels. Average offsets are close to Poisson expectations in all cases except for the highest occupancy tracts, where they are inflated by an outlier (see below). Explicitly, $\langle \sqrt{(n_1 - n_2)^2/(n_1 + n_2)} \rangle = 1.4$, where n are the total raw counts of dwellings and people in a given tract returned by one of the teams.

The outlier is tract 1901.00, whose repeat measurements differ by 6.6σ . There, one team counted $\{P,C,V,R,T,M\} = \{23,1,1,1,6,2\}$ while the other

counted $\{77, 15, 10, 1, 6, 6\}$. Abramson re-counted this tract on-foot 14 hours after the PIT tally, obtaining $\{36, 4, 6, 0, 8, 2\}$. In total, this tally (56 ± 7) is within 1.9σ of the mean of the two volunteer teams (75 ± 6) . As such, we treat the PIT entries identically to the rest. As illustrated in Figure 2, top, the mean intercounter variance drops (to 1.3σ) if this tract is excluded.

In terms of categories, all are consistent with Poisson expectations with the exception of RVs, on which agreement is significantly better. Given their salience, this finding is reassuring if also unsurprising.

No team counted tracts in both Hollywood and East Hollywood. As such, the volunteer counts in those communities represent totally independent datasets. Once the professional-counted tracts are included, cross-talk comes only from one tract in East Hollywood counted by a team that surveyed five tracts in Hollywood. We discuss intercommunity comparisons between volunteer and professionally counted tracts in Section 3.3.

3 Results

This section presents community level estimates for the number of unsheltered people living in Hollywood and East Hollywood as of 25 February 2021. Sections 3.1 and 3.2 summarize our results; Section 3.3 compares them to the 2020 LAHSA PIT estimates.

3.1 Hollywood

Counters identified 702 ± 44 (95% CI) persons and dwellings in the 21 census tracts comprising the Hollywood community. Modulated by the baseline CVRTM weights, these estimates imply a total unsheltered population in Hollywood of 936 ± 92 people (90% CI; Figure 4, left), with the plurality (35%) living in tents (Table 3; Figure 3, left). The five tracts counted by professional teams—largely along the US 101 corridor—comprised

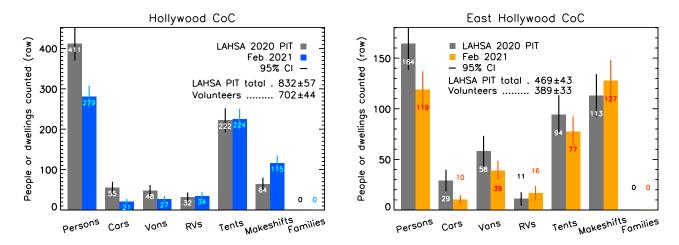


Figure 3: Raw tallies of unsheltered persons and dwellings in Hollywood and East Hollywood (left/right) from the 2020 and 2021 PIT counts (grey/colors). Persons, cars, and vans fell in both communities while RVs and tents stayed statistically flat. Makeshift structures are the only category to show a potential common increase. Overall, we identified 208 fewer people and dwellings compared to 2020, with similar 16% decreases assessed by almost entirely independent teams in both communities. "Persons" are TAY+Adults.

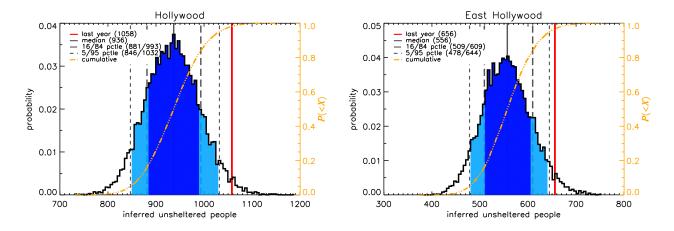


Figure 4: Explain what the PDFs and CDFs are, what the colors mean.

Table 3: Greater Hollywood 2021 PIT Unsheltered Data and Population Estimates

	Adult	TAY	Car	Van	RV	Tent	Makeshift	2021 Total	2020 Total	Difference
Hollywood										
Counts	277	2	21	27	34	224	115	702	831	-15%
Inhabitants	277 (27)	2 (5)	32 (11)	49 (13)	50 (14)	332 (29)	195 (24)	937 (93)	1058	-11% (9%)
Category share	30% (3%)	0% (0%)	3% (1%)	5% (1%)	5% (1%)	35% (3%)	21% (3%)	-	-	
East Hollywood										
Counts	114	4	10	39	16	77	127	389	469	-17 %
Inhabitants	114 (19)	4 (4)	15 (8)	70 (15)	24 (9)	115 (19)	216 (23)	557 (83)	656	-15% (12%)
Category share	20% (3%)	1% (1%)	3% (1%)	13% (3%)	4% (2%)	20% (3%)	39% (4%)	_	-	_

Parentheses denote 90% uncertainties (binomial in the case of the categories). Uncertainties larger than estimates imply that only upper limits are available. Marginalized upper limits are obtainable from the results file and imply <3 unaccompanied minors and <3 unsheltered families in either community.

42% of raw counts and 43% of inferred unsheltered people. Tract 1910.00 (pro-counted) had the most people and dwellings (123); 1899.03 had the fewest (0). These tracts also bracket the population statistics.

Modifying the CVRTM weights from the baseline SPA4/CD13 values to the SPA4 wide values lowers Hollywood's inferred total unsheltered population to 912 ± 68 people; applying an updated tent weight based on a survey in Hollywood raises it to 944 ± 118 people (Section 4). Neither represents a significant change from baseline.

3.2 East Hollywood

Counters identified 389 ± 33 (95% CI) persons and dwellings in the 18 census tracts comprising East Hollywood. Modulated by the baseline CVRTM weights, these estimates imply a total unsheltered population in East Hollywood of 556 ± 83 people (Figure 4, right), with the plurality (39%) living in makeshift structures (Table 3, Figure 3, right). The four tracts counted by professional teams comprised 46% of those counts and 47% of inferred unsheltered people. Tract 1927.00 (pro-counted) had the most people and dwellings (87); 1912.04 had the fewest (5). These tracts also bracket the total population statistics.

Modifying the CVRTM weights from the baseline SPA4/CD13 values to the SPA4 wide values lowers East Hollywood's inferred total unsheltered population to 539 ± 59 people; applying the updated tent weight raises it to 559 ± 87 people. Neither represents a significant change from baseline.

3.3 Comparison to 2020

The official LAHSA estimates from the 2020 PIT count are overplotted in Figure 4 as a red vertical line in each panel: 1058 unsheltered people in Hollywood, 656 in East Hollywood. Our baseline inferences suggest a >95% probability that the current population has fallen from those levels. Using the median and 90% CI, we infer declines of $11\% \pm 9\%$ and $15\% \pm 12\%$, respectively.

Figure 5 shows the changes in counts and inferred population in each tract geographically illustrated in Figure 1. In total, we find significant gains in 7 (6) tracts in terms of counts (people), and significant declines in 14, resulting in net changes of -193 ± 45 and -201 ± 76 counts or people, respectively.²

The tracts with the largest year-on-year gain (1912.01, +40 people) and loss (1927.00, -125 people) are both in East Hollywood, and contain Barnsdall Park and US Rte. 101, respectively.

Given the deficit in raw counts, it seems unlikely that reasonable modifications to the CVRTM weights will qualitatively change the trend we infer. The T and M weights are the largest potential error sources due to the high proportion of people living in tents and makeshifts. To constrain their evolution from last year, SELAH outreach teams surveyed 47 tents (38 responses) in Hollywood on 28 Feb. While the full 2021 PIT area has not been assessed, this exercise yielding a mean occupancy of $T=1.39\pm0.14$ people per tent, or $T=1.50\pm0.22$ when non-responses are modeled.³ Although M was not estimated, that T value is consistent with the official 2020 weight of $T=1.48\pm0.11$.

Figure 6 illustrates the effect of the above CVRTM modifications, none of which alter our conclusions. In all cases, we infer at least a 93% chance of a decline compared to the 2020 PIT count.

While we encourage robust efforts to update the CVRTM weights, we caution that the changes needed to null the change we infer from 2020 are substantial. Only changes to T and M can achieve it, which must rise to 2.2 and 2.6 people from 1.5 and 1.7 people, respectively, in 2020. Not withstanding the above survey, such $\sim 50\%$ increases in *mean* occupancies seem unlikely, especially as known COVID-related tent distribution efforts have pushed in the opposite direction (Section 4).

All of the above is in large part a reflection of the fact that a $\sim 30\%$ reduction in persons seen on the street drives the overall trend (Figure 3). Cars and vans are also down from last year by more than the number of available safe parking spaces would suggest (Section 4), but the total number of dwellings remained flat in most tracts. (Only makeshift structures show a potential common gain in both communities.) Although uncertainties in East Hollywood are large, Figure 7 reveals these trends to be common to both communities and to tracts counted by volunteers or professionals.

Such consistencies in \sim independent datasets suggest the results are robust, and further cross-checks are presented in the next section.

²These estimates incorporate uncertainties from backing-out tract-level CVRTM counts from their total populations and person

counts provided by the LAHSA data portal.

³We assumed they were equally likely to have anywhere from 0 to 4 occupants, each.

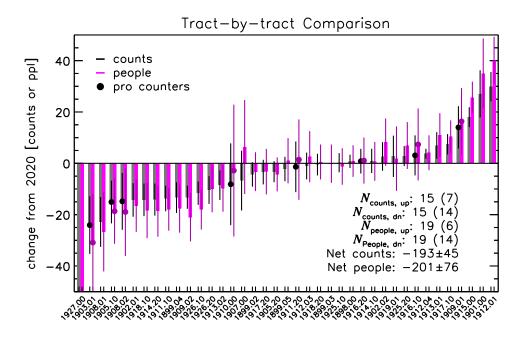


Figure 5: Tract-level year-on-year changes. Pro and vol trends are similar. Net loss of about 200 people or identified persons+structures. 1927.00 saw the biggest loss, which is explainable via XYZ.

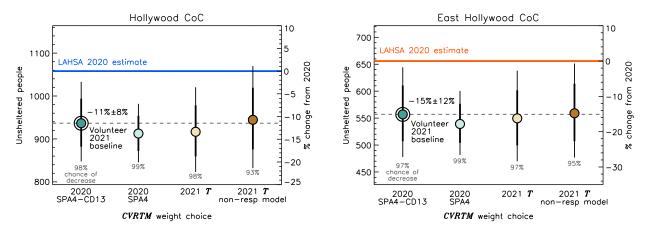


Figure 6: Unsheltered populations in Hollywood (left) and East Hollywood (right) as functions of CVRTM weights. The baseline estimate uses the same weights as the 2020 LAHSA Community Summaries. Using SPA4 weights or replacing the tent weight, T, with results from a survey conducted in Hollywood yields consistent results. All imply at least a 93% chance that unsheltered homelessness has fallen by some amount, with likely declines of $12\% \pm 9\%$ and $15\% \pm 12\%$ in Hollywood and East Hollywood, respectively.

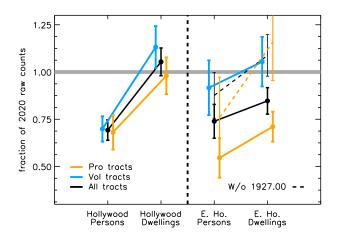


Figure 7: Comparison of trends in pro- and vol-counted tracts in both communities. Consistency is good, though 1927.00 counts for a lot.

3.4 Cross-checks

Four cross-checks involving independent counters and the use of external datasets validate the results presented above by suggesting that the raw counts from our 2021 PIT count are accurate:

3.4.1 Internal checks

First, as shown in Figure 2, inter-comparisons of the count's 37 duplicate tract measurements suggest pertract and per-category counting uncertainties are consistent with the random errors built into the analysis. As such, there is no evidence that counters were biased in their identification of unsheltered persons or dwellings. Such a statement does not preclude the possibility that all teams were systematically blind, e.g., to cars and vans, we simply have no affirmative evidence to that effect.

However, the fact that trends hold in tracts counted by volunteers and professionals—who made their assessments on foot and in daylight—suggests that such biases are likely not to be large, as do post-facto independent measurements of key geographies.

3.4.2 External checks

Six additional external checks also suggest our PIT enumerations are accurate.

First, three specific census tracts were re-surveyed in detail:

• Tract 1901.00: the only outlier tract in terms of

inter-counter variability. L. Abramson recounted this tract 14 hours after the PIT count (circa 9:00 AM) with results 1.9σ below the average of the volunteer teams' results.

- Tract 1912.01: the tract with the largest increase.
 L. Abramson recounted this tract on 27 Feb. circa
 12:00 PM with results consistent with the PIT teams' assessments to within 1 σ.
- Tract 1927.00: the tract with the largest decrease. L. Abramson recounted this tract on 4 March circa 8:30 AM by vehicle with results lower than the PIT's assessment. However, because this tract is especially dense and contains many freeway shoulders, it was originally surveyed on foot by outreach professionals. As such, the vehicular recount suggests that the PIT data are not biased in ways that would induce an artificial year-on-dear decline.

Two larger-geography surveys also concur:

- Biweekly survey data from *The Hollywood Partnership* from 19 Feb. are consistent with our PIT count in a common tract (1902.02) and with an independent recount of that entire geography performed 28 Feb. by Abramson and Kohan. These also show a decline from past values.
- Three tracts in Echo Park and Silver Lake monitored biweekly by SELAH since May 2020 also show similar declines to that implied by our data.

Finally, safe parking—a known sink—seems unable to account for sufficient cars and vans to meaningfully affect our conclusions. 49 spaces exist in or near the survey area (Hollywood, East Hollywood, and Echo Park). These probably did go uncounted, and may have been occupied by 80 ± 16 total car and van dwellers ($1\,\sigma$, assumes equal mix). If so, the chance of a decline from 2020 falls from 98% to 92% in the baseline case.

All of the above suggests that our results are quantitatively and qualitatively reliable.

4 Discussion

If the global picture is one of a general decline in unsheltered population, smaller scales tell different stories. Seven tracts saw at least a 50% increase in their number of dwellings; five saw more than 100% gains.⁴ In one

⁴Tracts 1902.02, 1907.00, 1912.01, 1915.00, 1925.20, which together account for nearly 10% of all identified street dwellings and 17% of all counts.

case—tract 1907.00—the total population stayed nearly identical while the fraction of rough sleepers and persons in CVRTM dwellings swapped (Figure 8). Given this tract's location—Fountain to Sunset to Franklin, Vine to Highland to La Brea; the commercial heart of Central Hollywood—this phenomenon might increase the *visual salience* of unsheltered living even as the population as a whole has declined.

The lack of change in tents is notable as it suggests that known tent distribution efforts by providers must in large part have gone to replacing damaged or destroyed structures, at least in Greater Hollywood.

A \sim 30% drop in unsheltered individuals in both Hollywood and East Hollywood drives the decline we find, for which government initiatives to move people indoors (Project Roomkey) and staunch inflow into homelessness (eviction moratoria) may be responsible. Indeed, CD13's share of LA County's unsheltered senior population (6.5%) implies that perhaps 100 of its 1608 occupied rooms were filled with Greater Hollywood residents on the night of the count-about half the inferred change. The opening of at least one A Bridge *Home* site in Los Feliz—whose catchment area includes Greater Hollywood—and 120 PATH permanent supportive housing units may also have contributed. The latter are located in tract 1927.00. While all of those units did not go to local residents, any that did would help drive that tract's large observed decrease. Coordinated Entry System data will constrain these possibilities.

However, to say nothing of the implications of the above for conditions after the eviction moratoria lapse, if there are fewer people on the street today, their quality of life has degraded markedly. COVID has restricted or eliminated access to restaurant and park bathrooms, libraries (and so *The Source* service days), DPSS (EBT, Medi-Cal), DMV (ID replacement), and DMH facilities. Physical limitations on caseworker access to clients at hospitals and clinics has also hindered successful discharges. These qualitative harms are reflected by a 25% increase in overdose deaths, and visually amplified by a doubling of unsheltered dwellings in 13% of census tracts⁵ as enforcement of tent folding ordinances (LAMC 56.11) and City and State sanitation programs were simultaneously suspended or de-scoped. So, while the PIT data may support the efficacy of programs designed to reduce street homelessness, they do not suggest that the state of homelessness in Greater Hollywood

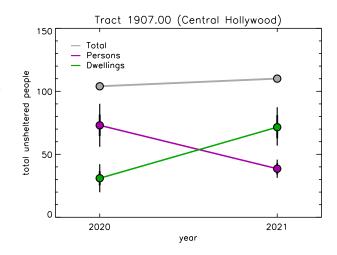


Figure 8: Illustration of what's happened in 4 tracts—persons and structures swapping prominence—in this case with the total population ~conserved. This is also an example of one of 5 tracts where dwelling frequencies at least doubled. 1907 happens to be in the heart of Central Hollywood, increasing the visual impact of this rise in dwellings.

has improved. In the fight to rebuild lives—as well as build homes—that fact must remain paramount.

PRK effects.

ABH effects.

PSH effects.

1907.00 people and tents switched. Total unsheltered \sim constant but visual perceptions in this most-highly trafficked tract will make it *feel* like homelessness has increased by a lot.

Edges.

Deaths (COVID \sim 300; ODs...at least 6x higher than that?).

4.1 Concentration

5 Summary

Acknowledge Kelson

A Example Documents

B Full Tract-level Results

⁵Including 1907.00, Central Hollywood's commercial core.

Tract:										
Date:										
Гіте:										
Team members:										
Adults	1824 yr olds	Unacc Minors	Cars	Vans/SUVs	RVs	Tents	Makeshift	Families		
Comments:										

Figure 10: Counter tally-sheet

 Table 4: Census Tract-level Unsheltered Counts

Tract	Community	Counter	A	TAY	С	V	R	T	M
1898.00	Hollywood	Vol	3.3	0.3	0.0	0.7	0	1.3	0.0
1899.02	Hollywood	Vol	4.3	0.0	0.0	1.3	2	4.0	1.3
1899.03	Hollywood	Vol	0.0	0.0	0.0	0.0	0	0.0	0.0
1899.04	Hollywood	Vol	9.5	0.0	0.0	1.0	0	2.5	2.0
1899.05	Hollywood	Vol	3.0	0.0	3.0	4.5	1	2.0	0.0
1901.00	Hollywood	Vol	49.5	0.5	8.0	5.5	1	6.0	4.0
1902.01	Hollywood	Vol	14.5	0.0	0.5	0.0	0	2.5	1.5
1902.02	Hollywood	Vol	9.0	0.0	0.0	0.0	0	8.0	5.5
1903.01	Hollywood	Pro	10.0	0.0	0.0	0.0	0	19.0	22.0
1905.10	Hollywood	Pro	13.0	0.0	0.0	0.0	4	6.0	4.0
1905.20	E. Hollywood	Vol	2.0	0.5	0.5	1.0	0	4.0	1.0
1907.00	Hollywood	Vol	38.5	0.0	2.0	0.0	0	38.5	7.0
1908.01	Hollywood	Vol	18.5	0.0	0.5	0.0	0	19.5	9.0
1908.02	Hollywood	Pro	22.0	0.0	0.0	1.0	5	13.0	13.0
1909.01	Hollywood	Pro	15.0	0.0	0.0	0.0	0	17.0	9.0
1909.02	Hollywood	Vol	2.7	0.3	0.7	1.7	0	0.0	0.0
1910.00	Hollywood	Pro	34.0	0.0	1.0	0.0	5	60.0	23.0
1911.10	E. Hollywood	Vol	4.0	0.5	0.0	0.0	0	2.5	0.5
1911.20	E. Hollywood	Pro	14.0	0.0	0.0	0.0	0	24.0	10.0
1912.01	E. Hollywood	Vol	17.5	1.0	0.5	3.5	1	5.5	12.0
1912.03	E. Hollywood	Vol	5.0	0.0	2.0	8.0	0	0.0	2.5
1912.04	E. Hollywood	Vol	3.0	0.5	0.5	1.0	0	0.0	0.0
1913.01	E. Hollywood	Vol	8.0	0.0	0.5	7.5	0	5.0	1.0
1913.02	E. Hollywood	Vol	5.5	0.0	0.5	0.5	0	3.5	6.0
1914.10	E. Hollywood	Vol	7.5	0.0	1.0	0.5	0	1.0	5.5
1914.20	E. Hollywood	Vol	4.0	0.0	2.0	4.5	1	3.0	2.0
1915.00	E. Hollywood	Vol	10.0	0.0	0.0	4.5	2	2.5	2.5
1916.10	E. Hollywood	Pro	6.0	0.0	0.0	1.0	1	2.0	22.0
1916.20	E. Hollywood	Pro	0.0	2.0	0.0	0.0	0	4.0	6.0
1917.10	Hollywood	Vol	6.5	0.0	2.0	4.5	1	1.0	0.5
1917.20	Hollywood	Vol	2.3	0.0	0.3	1.3	6	0.0	4.3
1918.10	Hollywood	Vol	3.5	0.0	1.0	1.5	1	10.0	0.0
1918.20	Hollywood	Vol	2.5	1.0	0.0	2.5	2	1.5	2.0
1919.01	Hollywood	Vol	16.0	0.0	2.0	1.5	5	13.0	7.5
1925.10	E. Hollywood	Vol	4.0	0.0	1.5	1.0	1	0.0	1.5
1925.20	E. Hollywood	Vol	1.0	0.0	1.0	6.0	1	0.0	0.0
1926.10	E. Hollywood	Vol	2.0	0.0	0.0	0.0	0	3.5	0.5
1926.20	E. Hollywood	Vol	1.0	0.0	0.0	0.0	0	11.0	0.5
1927.00	E. Hollywood	Pro	20.0	0.0	0.0	0.0	7	6.0	54.0

Raw counts from each tract. Coding as in Table 1. Fractional counts reflect averages over multiple counters.

 Table 5: Census Tract-level Unsheltered Population Inferences

Tract	Community	Counter	A	TAY	С	V	R	T	М
1898.00	Н	V	3.3 (1.7)	0.9 (0.6)	2.3 (2.2)	2.8 (1.5)	2.8 (2.8)	1.9 (1.6)	7.0 (7.0)
1899.02	Н	V	4.3 (2.0)	0.7 (0.7)	2.3 (2.3)	2.3 (2.2)	3.8 (2.5)	5.9 (2.9)	2.2 (2.0)
1899.03	Н	V	5.2 (5.2)	0.7 (0.7)	2.2 (2.2)	3.9 (3.9)	2.8 (2.8)	6.8 (6.8)	7.0 (7.1)
1899.04	Н	V	9.5 (3.6)	0.7 (0.7)	2.2 (2.3)	4.1 (2.2)	2.7 (2.7)	3.7 (2.7)	3.3 (3.0)
1899.05	Н	V	3.0 (2.0)	0.7 (0.7)	4.4 (3.3)	7.7 (5.4)	3.3 (1.7)	2.9 (2.5)	7.2 (7.1)
1901.00	Н	V	49.5 (8.2)	1.3 (0.8)	11.8 (5.9)	9.5 (6.1)	3.3 (1.8)	8.9 (4.3)	6.6 (4.5)
1902.01	Н	V	14.5 (4.4)	0.7 (0.7)	2.1 (1.3)	4.0 (3.9)	2.8 (2.8)	3.7 (2.8)	5.2 (2.5)
1902.02	Н	V	9.0 (3.5)	0.7 (0.7)	2.2 (2.2)	4.0 (4.0)	2.8 (2.8)	11.8 (5.0)	9.1 (5.3)
1903.01	Н	P	10.0 (5.2)	0.7 (0.7)	2.2 (2.2)	3.9 (3.9)	2.7 (2.7)	27.8 (11.0)	36.5 (16.8)
1905.10	Н	P	12.9 (5.9)	0.7 (0.7)	2.3 (2.2)	3.9 (4.0)	5.7 (5.1)	8.8 (6.0)	6.5 (5.9)
1905.20	E	V	2.0 (1.6)	1.3 (0.8)	2.1 (1.3)	4.2 (2.2)	2.8 (2.8)	5.9 (3.6)	3.9 (2.1)
1907.00	Н	V	38.5 (7.2)	0.7 (0.7)	3.0 (2.6)	3.8 (3.9)	2.8 (2.8)	56.7 (12.8)	11.6 (6.3)
1908.01	Н	V	18.5 (4.9)	0.7 (0.7)	2.1 (1.3)	3.9 (3.9)	2.7 (2.8)	28.6 (8.4)	14.9 (7.4)
1908.02	Н	P	21.9 (7.7)	0.7 (0.7)	2.2 (2.2)	5.0 (3.1)	7.1 (5.8)	19.0 (9.1)	21.3 (11.8)
1909.01	Н	P	15.0 (6.3)	0.7 (0.7)	2.3 (2.3)	4.0 (4.0)	2.8 (2.8)	24.9 (10.6)	14.8 (9.4)
1909.02	Н	V	2.7 (1.5)	0.9 (0.6)	2.2 (1.2)	2.9 (2.5)	2.7 (2.7)	6.8 (6.8)	7.2 (7.2)
1910.00	Н	P	34.0 (9.6)	0.7 (0.7)	4.1 (2.6)	4.0 (3.9)	7.0 (5.7)	88.1 (21.7)	38.1 (17.4)
1911.10	E	V	4.0 (2.3)	1.3 (0.8)	2.2 (2.2)	3.9 (3.9)	2.8 (2.7)	3.6 (2.8)	2.3 (1.4)
1911.20	E	P	13.9 (6.1)	0.7 (0.7)	2.2 (2.2)	3.9 (3.9)	2.8 (2.7)	35.3 (12.8)	16.4 (10.1)
1912.01	E	V	17.5 (4.9)	2.1 (1.1)	2.1 (1.3)	6.0 (4.6)	4.5 (2.2)	8.1 (4.2)	19.9 (9.0)
1912.03	E	V	5.0 (2.6)	0.7 (0.7)	3.0 (2.6)	13.9 (7.8)	2.7 (2.8)	6.8 (6.8)	4.2 (3.3)
1912.04	E	V	3.0 (2.0)	1.3 (0.8)	2.1 (1.3)	4.2 (2.2)	2.8 (2.8)	6.7 (6.8)	7.0 (7.0)
1913.01	E	V	8.0 (3.3)	0.7 (0.7)	2.1 (1.3)	13.0 (7.5)	2.0 (1.2)	7.3 (3.9)	3.8 (2.0)
1913.02	E	V	5.5 (2.7)	0.7 (0.7)	2.1 (1.3)	2.5 (1.5)	2.0 (1.2)	5.1 (3.2)	9.9 (5.6)
1914.10	E	V	7.5 (3.2)	0.7 (0.7)	3.4 (1.8)	2.6 (1.6)	2.7 (2.8)	3.2 (1.7)	9.0 (5.3)
1914.20	E	V	4.0 (2.3)	0.7 (0.7)	3.0 (2.7)	7.7 (5.3)	3.3 (1.8)	4.4 (3.0)	3.3 (3.0)
1915.00	E	V	10.0 (3.6)	0.7 (0.7)	2.2 (2.2)	7.8 (5.3)	3.5 (2.9)	3.7 (2.7)	4.1 (3.4)
1916.10	E	P	6.0 (4.0)	0.7 (0.7)	2.3 (2.3)	5.0 (3.1)	4.0 (2.4)	6.5 (3.4)	36.4 (16.9)
1916.20	E	P	5.2 (5.2)	4.3 (2.3)	2.3 (2.3)	3.9 (3.9)	2.8 (2.8)	5.8 (4.9)	10.0 (7.5)
1917.10	Н	V	6.5 (3.0)	0.7 (0.7)	3.0 (2.6)	7.8 (5.4)	3.3 (1.7)	3.3 (1.8)	2.3 (1.4)
1917.20	Н	V	2.3 (1.5)	0.7 (0.7)	1.4 (0.9)	2.3 (2.1)	9.0 (4.3)	6.6 (6.8)	7.1 (3.9)
1918.10	Н	V	3.5 (2.2)	0.7 (0.7)	3.4 (1.8)	5.6 (2.7)	4.4 (2.2)	14.6 (5.7)	7.0 (6.9)
1918.20	Н	V	2.5 (1.8)	2.2 (1.2)	2.2 (2.3)	4.3 (3.8)	2.9 (2.6)	2.2 (2.1)	3.3 (3.0)
1919.01	Н	V	16.0 (4.7)	0.7 (0.7)	2.9 (2.6)	5.6 (2.7)	7.1 (4.3)	19.1 (6.6)	12.4 (6.5)
1925.10	E	V	4.0 (2.3)	0.7 (0.7)	4.7 (2.2)	4.2 (2.2)	4.5 (2.2)	6.7 (6.7)	5.3 (2.6)
1925.20	E	V	2.6 (1.6)	0.7 (0.7)	4.1 (2.5)	10.5 (8.3)	3.9 (2.4)	6.8 (6.8)	7.1 (7.1)
1926.10	E	V	2.0 (1.6)	0.7 (0.7)	2.2 (2.3)	4.0 (4.0)	2.8 (2.8)	5.1 (3.3)	2.3 (1.4)
1926.20	E	V	2.2 (1.2)	0.7 (0.7)	2.2 (2.2)	3.9 (4.0)	2.8 (2.8)	16.1 (6.1)	2.3 (1.4)
1927.00	E	P	19.9 (7.4)	0.7 (0.7)	2.3 (2.3)	3.9 (3.9)	10.0 (7.0)	8.8 (6.0)	90.4 (33.2)

Median and 90% CI listed.

Tract 1899.02 (Sierra Bonita-La Brea/Fountain-Sunset)

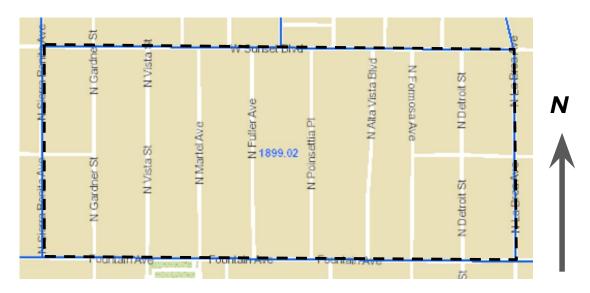


Figure 11: Example Hollywood tract map.

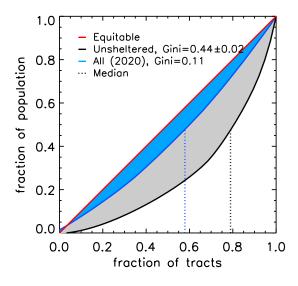


Figure 9: All tracts in Greater Hollywood. This Gini Coefficient is about the same as Kenya's. 50% of unsheltered persons and dwellings are concentrated in 20% of census tracts.

2021 Greater Hollywood Volunteer Homeless Count

Materials:

- Tract maps (up to 2, see below).
- Tally sheets (up to 2, one per tract, see below).
- Clipboard + pens.

Instructions:

- 1. Ensure Counter has tally sheets + tract maps. Ensure Navigator has tract maps if present.
- Drive to a tract. Enter an intersection in google maps for directions (e.g., "Fountain/Normandie"). Record tract number on tally sheet.
- 3. Drive every street in the tract.
 - o Drive slowly so Counter can survey each street. Use hazard lights.
 - If present, Navigator should direct Driver and mark streets that have been counted. Else, Counter should do this.
 - Count only the interior side streets on tract borders.
- In Test 1890 02 count only the Scide of Surset Weide of In Rea
- If you do not count a street, mark on map and note in "Comments" section of the tally sheet (see below).
- $\circ\quad$ Do not exit your vehicle for any reason during the count.

Tally example:

- Record the tract number, printed in bold at top of each tract map (see example above).
 - Read your results to the volunteer who collects your materials back at The Center.

Tract: 18	99,02							
Date: 2/	25/21							
Time: 7:1	LS PM							
Team memb	ers: Abrav	uson, Y	oung					
Adults	1624 yr olds	Unacc Minors	Cars	Vans/SUVs	RVs	Tents	Makeshift	Families
IIII			ш	ш	t	tt	t	

Dwelling examples:



Figure 12: Count primer SCRUB EK'S NUMBER!