

Results of the 2021 Volunteer Greater Hollywood Homeless Count

Louis Abramson, PhD^{*,†,‡}

^{*}*Hollywood 4WRD Homelessness Coalition, 6255 Sunset Blvd, Ste 150, LA, CA 90028*

[†]*Central Hollywood Neighborhood Council, PO Box 93907, LA, CA 90093*

[‡]*Carnegie Observatories, 813 Santa Barbara St, Pasadena, CA 91101*

labramson.chnc@gmail.com

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Abstract

The Los Angeles Homelessness Services Authority (LAHSA) opted not to sponsor a 2021 Unsheltered Point In Time Count. Despite this, service providers, business leaders, residents, and other organizations in Hollywood decided to proceed with an analogous if unsponsored event on 25 February 2021. XXX volunteer vehicle-based teams and YYY professional foot outreach teams performed visual inspections of all 39 US Census tracts in the official Hollywood and East Hollywood Continuum of Care (CoCs). Based on the 2020 official LAHSA dwelling weighting factors, we estimate that there are $xxx \pm yyy$ unsheltered people living on the streets of those CoCs (90% confidence). Modulating the weights leads to variability of XXX. We conclude that YYY. All data and results are presented in tabular form, with materials, and analysis code presented in the Appendix or on request.

1 Introduction

The Los Angeles Homelessness Services Authority (LAHSA) has conducted an annual Point In Time (PIT) census of the unhoused population of Los Angeles County every year since 20XX. These data are critical to essentially all homelessness-related activities in the County and its municipalities. They inform programmatic funding levels, educate residents, undergird local and state legislative efforts, and shape the day-to-day practices of thousands 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.

Disruptions from COVID-19 have both challenged and re-emphasized the need for such data. As incomes have fluctuated, Los Angeles' already sizable community of housing-unstable residents have only grown more at risk of being pushed off couches or out of apartments and onto the street. As such, while the epidemiological considerations related to an all-volunteer county-wide census are real, the potential damage from failing to conduct one so is also substantial.

Given the non-uniformity in volunteerism and resources across LAHSA's large area of operations, the challenges of COVID were ultimately deemed sufficient to cancel the formal 2021 PIT census of unsheltered Angelenos. However, not all communities agreed with that decision. Hollywood was one such community.

Greater Hollywood is an epicenter of LA's homelessness crisis. According to the official 2020 Count, the Hollywood and East Hollywood Continuum of Care (CoC) were home to 2203 unhoused residents, 1714 of whom (78%) were living unsheltered on the street. This figure corresponds to roughly 5% of LA's homeless population concentrated in an area with only 2.5% (CITE) of its total population. In some regions in those CoCs, 1-in-30 residents are unhoused compared to 1-in-100 city-wide.

While the above statistics are tragic, Hollywood is also marked by increasingly formal coalitions of service providers, business leaders, residents, and quasi-governmental entities dedicated to humanely ending the homelessness crisis. Each of these stakeholders relies on the annual PIT count: lay residents need to be educated as to the size of the challenge; funders need to understand how many people require services; legislators need to know how many people are dwelling where.

For these reasons, and given the capacity of the above organizations and individuals, the Hollywood community decided to proceed with an unsponsored 2021 PIT count.

This document describes the methodology and findings of that count, which took place on the night of Thursday, February 25, 2021. Section 2 describes data acquisition, analysis, and volunteer training protocols. Section 3 presents estimates of the unsheltered populations in the Hollywood and East Hollywood CoCs. Section 4 contextualizes those findings in terms of previous LAHSA results and describes factors that would modulate them upwards or downwards. 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.

2 Methodology

Our count took place on 25 February 2021 beginning at 7.00 PM. This date and time correspond to roughly one month later and four hours earlier than the official event would have occurred. Beyond those choices, our program adhered as closely as possible to the official LAHSA 2020 PIT data collection and analysis protocols. Ancillary data from regularly monitored census tracts suggests that the date offset is unlikely to substantially erode comparability between this and past datasets, though **we have less purchase on time-of-day effects**.

The count was based out of The Center at Blessed Sacrament (“The Center”), a major service provider in Hollywood, at 6636 Selma Ave. All volunteer teams launched from and returned to this location as they would in previous years to a LAHSA community count hub. The major difference was that training was performed remotely as a COVID precaution, and volunteer counters never left their vehicles.

2.1 Data Acquisition

The count covered the 39 US Census tracts constituting the LAHSA-defined Hollywood and East Hollywood Continuum of Care (CoC; 21 and 18 tracts, respectively). Our count did not recognize census tract “splits” or sub-tracts—e.g., “1905.10a”—which sets a coarser resolution floor to our results compared to past PIT results. That choice also slightly modifies the definition of the Hollywood CoC to include all of tract 1905.10 as opposed to only the “a” sub-tract. Such a modification has

a negligible impact on CoC-level results (since 2016, split 1905.10b has never been seen to host more than 7 unsheltered people). Sections 3 and 4 discuss CoC results with tract-level tallies provided in the Appendix. Results for Greater Hollywood are not directly comparable to any official service geography, but are available upon request for educational purposes. Figure 1 shows the count footprint.

All tracts were vetted by professionals from *The Center* prior to assignment. Tracts deemed especially challenging—due, e.g., to their proximity to freeway on-ramps and peripheries—were reserved for professional counting teams. Vetting produced 9 such tracts, which were surveyed by outreach personnel from The Center and Covenant House—another provider—during daylight hours on 25 February (circa **XXX PM**). The remaining 30 tracts were divided among the volunteer vehicle-based teams and surveyed beginning at 7.00 PM. Table 1 records which tract was counted by which kind of team.

We recruited XXX teams of at least two people, YYY of which participated in the count itself. We limited participation to existing “pods” of two to three people—typically families—to ensure that the COVID status of each participant was controlled and the possibility of transmission minimized. Singlet volunteers were also admitted but remained on-site to assist with material distribution, collection, and data quality control processes. All participants wore personal protective equipment and maintained social distancing when appropriate.

Each vehicle-based volunteer team comprised at least a Driver and a Counter and was assigned two tracts to count. Three-person teams also included a Navigator per 2020 LAHSA PIT protocols. In such teams, the Navigator held the map and directed the Driver while the Counter tallied unhoused individuals/dwellings and the Driver drove. In two-person teams, the Counter doubled as the Navigator. Training emphasized techniques aimed at reducing the Counters’ cognitive loads and so minimize counting errors. These included driving slowly using hazard lights and 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.

Upon arriving at The Center, organizers gave each team a clipboard with:

- tract maps;
- tally sheets;
- a 1-page primer summarizing the training with a

lyzed as a function of the CVRTM weights, which may change with future information (see Section 2.2).

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”). Both statements were informed by the 2020 LAHSA PIT results for the Greater Hollywood community. No other prior count-based information was established to minimize biases.

A recording of a volunteer training session is available at [WEBSITE](#).

2.2 Data Analysis

The core component of the raw data was a 9 column by N_{team} row spreadsheet containing the tract-level tallies for each unhoused individual/dwelling class. The scheme of the analysis is:

1. parse and associate tracts with CoCs;
2. identify tracts counted by multiple teams;
3. assess tract-level counting errors;
4. upweight the CVRTM values by estimates of the CVRTM weights.

Our baseline result incorporates the 2020 SPA-4 estimates of the CVRTM weights provided by LAHSA. These are the best available data, but we recognize that COVID-related activities may have significantly changed these quantities. For example, various organizations are known to have made a concerted effort to distribute tents between last year’s PIT count and ours. We incorporate all known uncertainties in the weights, but—since they represent potential systematic errors—**analyze the impact of various CVRTM choices in Section 4.**

The resultant 9×39 array can then be split and summed to provide CoC-level total counts, or breakdowns of unhoused individual/dwelling classes.

While an estimate of the underlying population, uncertainties in each visual count and weight must be accounted for to understand how confident one can be that that estimate corresponds to the truth. We accomplish this by using Monte Carlo integration to construct the full probability distribution functions (PDFs) for the number of unhoused people of each class in each tract.

2.2.1 Monte Carlo Estimations of Unsheltered Probability Densities

Our analysis accounts for two known sources of uncertainty: Poisson counting errors in the visual tallies

and estimated random variances in the CVRTM weights. The former represents how a given tally might change if performed at a different (but comparable) time or by a different Counter. The latter represents how the mean occupancy of CVRTM structures in Hollywood might differ from the mean occupancy in SPA-4 writ large.

We model both uncertainties as Gaussian distributions with standard deviations of \sqrt{n} and σ , respectively, where n is the raw tally and σ is the standard error on the mean quoted by LAHSA. As such, the i -th estimate of the true number, N , of people in the j -th unsheltered class in any tract is:

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

where $\mathcal{G}(\mu, \Sigma)$ is a Gaussian random number with mean μ and standard deviation Σ , w is the 2020 LAHSA CVRTM weight for the appropriate unsheltered class. 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 $\sqrt{n_{\text{teams}}}$.

The final output PDFs are constructed from 10,000 random realizations of Equation 1. For the individual classes—including families—all weights are fixed to unity, such that $(w, \sigma) \equiv (1, 0)$ for all trials and uncertainties reflect only counting errors.

We place a floor on the CVRTM mean occupancies at 1 person per dwelling; i.e., we assume that the average person does not own more than one tent. This is not to say no one may own more than one tent, just that such a statement is never representative. **Relaxing this assumption does what?**

2.3 Duplicate Measurements

3 Results

This section presents CoC level estimates for the number of unhoused individuals and dwellings in the Hollywood and East Hollywood areas as of the evening of 25 February 2021. We start with summaries of each CoC in Sections 3.1 and 3.2 before discussing how these estimates compare to last year’s official LAHSA count in Section 3.3. Section 4 describes how varying elements of Section 2.2.1’s analysis modulates these results.

Table 1: Census Tract-level Unsheltered Data

Tract	Team	n_{teams}	Median Est.	90% CI
1898.00	V	1	8	4–14
1899.02	V	1	23	15–32
1899.03	V	1	3	0–8
1899.04	V	1	38	27–50
1899.05	V	1	20	13–29
1901.00	V	1	67	53–80
1902.01	V	1	36	26–47
1902.02	V	1	23	15–31
1903.01	V	1	109	89–131
1905.10	V	1	52	38–66
1907.00	V	1	106	87–124
1908.01	V	1	88	70–105
1908.02	V	1	88	71–106
1909.01	V	1	39	27–52
1909.02	V	1	26	16–36
1910.00	V	1	156	132–181
1917.10	V	1	12	6–19
1917.20	V	1	25	15–35
1918.10	V	1	45	32–58
1918.20	V	1	16	9–23
1919.01	V	1	58	43–73
1916.10	V	1	42	28–56
1916.20	V	1	16	9–24

this is a placeholder table

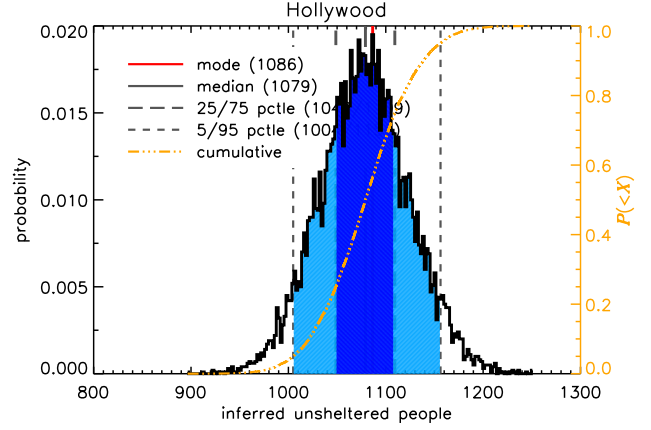


Figure 2

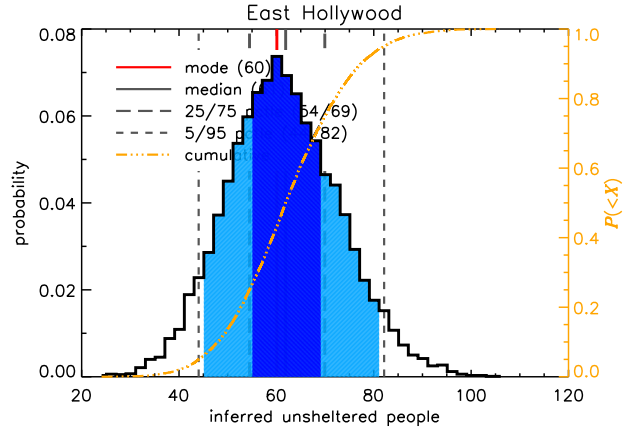


Figure 3

3.1 Hollywood CoC

3.2 East Hollywood CoC

3.3 Comparison to 2020

4 Discussion

We discuss these potential sources of systematic errors below.

4.1 Null Entries and TAY

As stated in Section 2.1.1, some (too few) tracts have unsheltered populations near zero, or at least are not observed to host any people or dwellings of a specific category. Such null entries are consistent with a range of non-zero values for the true population due to shot noise. As such, the Monte Carlo PDF reconstruction must allow them to take non-zero values based on an assumed

background rate.

Ideally, that rate would be based on the variations in a category’s counts (or count densities) in other, similar tracts defined by some independent criteria. While sufficient data from, e.g., the US Census may enable such an exercise, it is beyond the scope of this analysis. Instead, we base our noise floor on the number of counts of a given category expected if the total was evenly distributed across all tracts. That is:

$$\sigma_{j,\min} = \sqrt{\frac{\sum_{\text{all tracts}} n_j}{n_{\text{tracts}}}}, \quad (2)$$

where σ_j is defined in Equation 1.

This method works for any category, j , for which there is at least 1 individual/dwelling observed in any tract. However, for categories for which even 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 categories (corresponding to TAY).

State the bkg levels.

While we admit that such a treatment is somewhat arbitrary, due to the intrinsically low levels of at least unsheltered unaccompanied minors and families, it does not significantly affect our CoC level estimates. It does affect TAY, however, and as such, taken with the difficulty of disambiguating older TAY from younger adults, we caution against relying on the TAY estimates for anything beyond lower-limits.

4.2 CVRTM Biases

Less easily handled are potential biases in the CVRTM demographic weights our count adopts. Typically, specialized teams perform detailed interviews of people experiencing homelessness to update these weights in various geographic contexts. However, the cancellation of the official PIT count means that this will not occur in 2021. As such, we are forced to rely on year-old estimates.

We present

4.2.1 Nulling the 2021 Result

4.2.2 Examining Past Variability

4.2.3 Relying on Smaller Geographies

4.2.4 Using External Data

The Hollywood Partnership—one of Hollywood’s Business Improvement Districts (BIDs)—has performed

weekly visual scans of its footprint since spring 2019. These inspections tally unsheltered people and tents separately. As such, they can be used to bound the possible evolution of the CVRTM tent weight between the official 2020 value and what it may be today.

SECZ

A lower-bound on the the weight can be derived by assuming that all of the tents captured by the BID’s censuses were empty and all of their inhabitants visible. The weight would be just the number of people on the number of tents. If any of the tents were not empty, the true weight would be higher than the inferred weight. Ergo, the BID/SECZ derived tent weight may reflect a *conservative* estimate which, when applied to the entire footprint, would produce something like a lower-bound on the tent contribution to the 2021 count.

We’ll use the BID counts outside the SEZ and find (tents+people)/tents for the past year. We’ll fit it and get a range of values for the night of the count. It’s typically higher than 1.45 (thru last July, at least), so we can just find the decline and peg it to 1.45.

Plot the trend; discuss it in terms of the 2020 value; see what it does; talk about why we don’t think most of the folks on foot in the SECZ are interlopers.

5 Summary

A Example Documents

B Full Tract-level Results

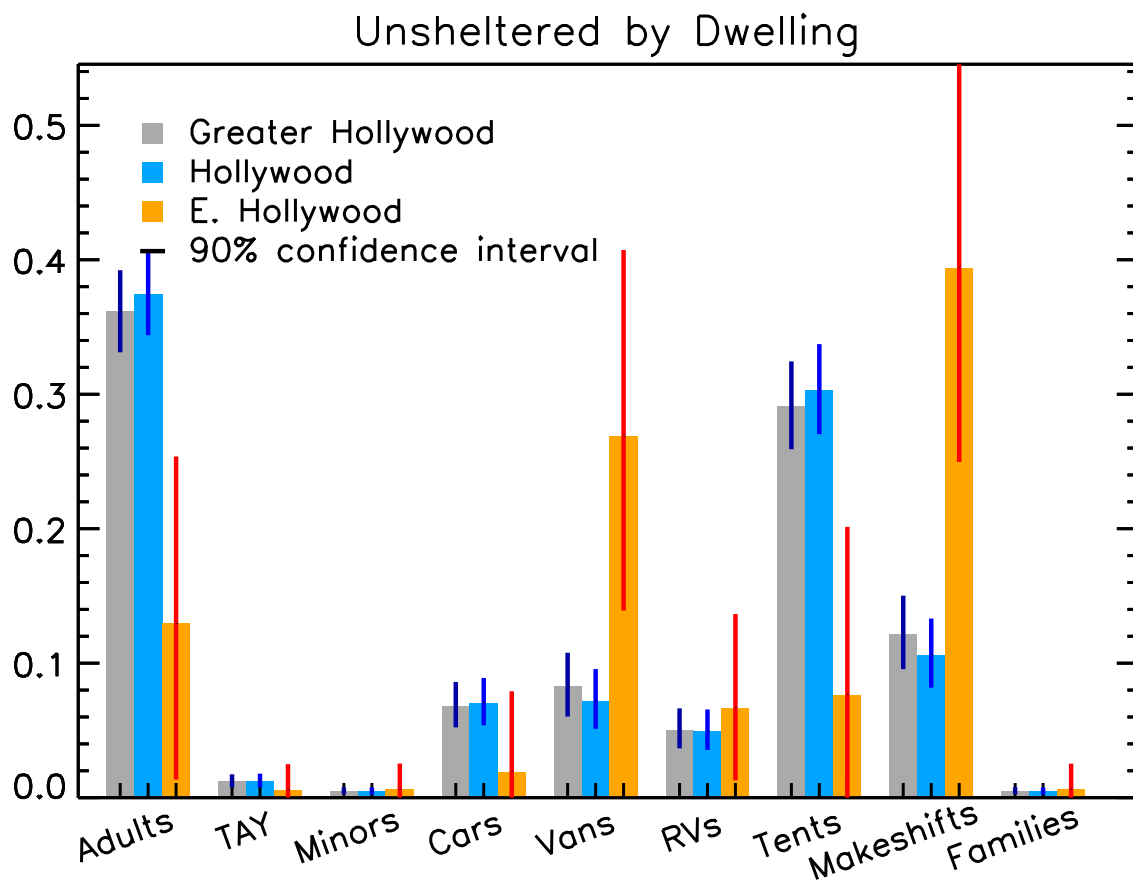


Figure 4

Data Acquisition Sheet – 2021 Greater Hollywood Homeless Count								
Tract:								
Date:								
Time:								
Team members:								
<i>Adults</i>	<i>16--24 yr olds</i>	<i>Unacc Minors</i>	<i>Cars</i>	<i>Vans/SUVs</i>	<i>RVs</i>	<i>Tents</i>	<i>Makeshift</i>	<i>Families</i>
Comments:								

Figure 5: Counter tally-sheet

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

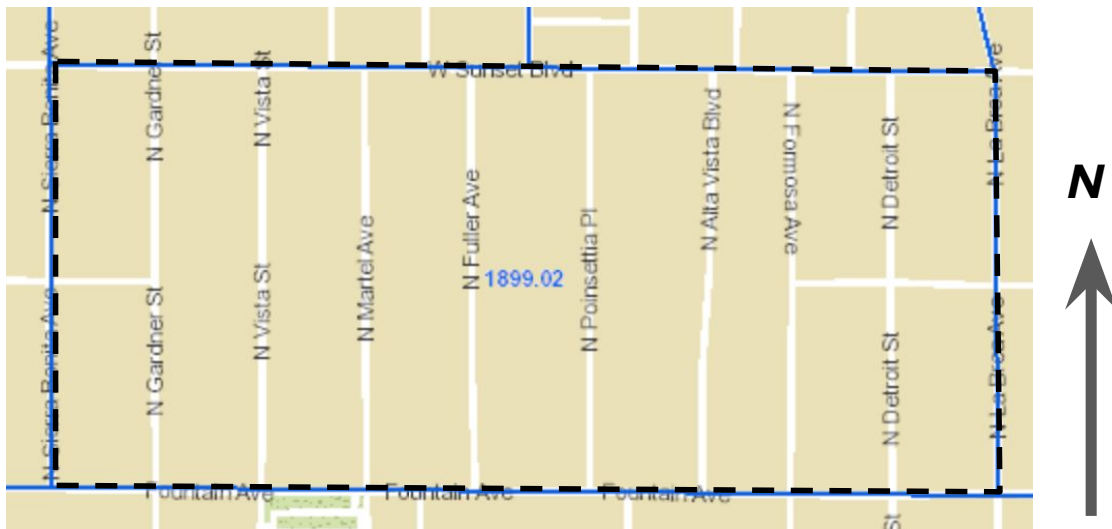


Figure 6: Example Hollywood tract map.

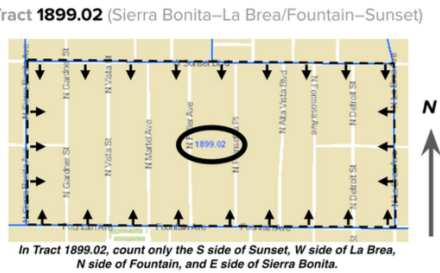
2021 Greater Hollywood Volunteer Homeless Count

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.
2. 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.
 - o If present, Navigator should direct Driver and mark streets that have been counted. Else, Counter should do this.
 - o **Count only the interior side streets on tract borders.**
 - o If you do not count a street, mark on map and note in "Comments" section of the tally sheet (see below).
 - o **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.**

Data Acquisition Sheet – 2021 Greater Hollywood Homeless Count

Tract: 1899.02								
Date: 2/25/21								
Time: 7:15 PM								
Team members: Abramson, Young								
Adults	15–24 yr olds	Unacc Minors	Cars	Vans/SUVs	RVs	Tents	Makeshift	Families
					I		I	
Comments: Didn't count DeLongpre btw Detroit & Formosa								

Dwelling examples:

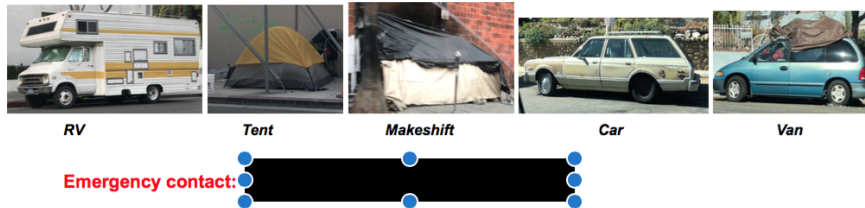


Figure 7: Count primer **SCRUB EK'S NUMBER!**