Results of the 2021 Volunteer Greater Hollywood Homeless Count

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Abstract

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 therefore invaluable.

Disruptions from COVID-19 have only further emphasized the need for such data. As incomes fluctuated, many of Los Angeles' already sizable number of housing-unstable residents may have been pushed off couches or out of apartments and onto the street. As such, while the epidemiological considerations of conducting an all-volunteer, countywide census are real, the damage from failing to do 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 this decision, and many had the resources to execute a robust—if unsponsored—survey on their own. Hollywood is one such community.

Greater Hollywood is an epicenter of LA's homelessness crisis. According to the official 2020 Count,

the Hollywood and East Hollywood Continua 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 within those CoCs, fully 1-in-30 residents are unhoused compared to 1-in-100 citywide.

While the above statistics are tragic, Hollywood is also marked by its community of professional and volunteer service providers, solutions-minded residents and businesspeople, and attuned political leaders. Increasingly formal coalitions of the above stakeholders are spreading across the district, dedicated to humanely ending the homelessness crisis. All of them rely on the annual PIT count for educational, financial, and programmatic purposes. When communicating with the public, the starting point for many conversations is simply stating the size of the challenge. When communicating with funders, it is similarly critical to convey how many people require services. When designing legislation—especially given the shock of COVID-19 and in the face of looming court proceedings—knowing how many unhoused Angelenos live where is foundational. For these reasons, organizations and individuals in Hollywood decided to with a 2021 Homeless countirrespective of other governmental decisions.

This document describes the methodology and findings of that count, conducted on the night of Thursday, February 25. Below, Section 2 describes the volunteer data acquisition, analysis, and training protocols. Section 3 present estimates of the unsheltered population in the Hollywood, East Hollywood, and Greater 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 LHASA 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. 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 (21 tracts) and East Hollywood (18) Continua of Care (CoC). 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. Beyond that, the only effect of that choice is to slightly modify of the definition of the Hollywood CoC to include all of tract 1905.10 as opposed to only the "a" sub-tract. This modification has a negligible effect on CoC-level results: since 2016, split 1905.10b has never been observed to host more than 7 unsheltered people. The Appendix presents tract-level tallies and raw individual/dwelling counts while the main text discusses CoC-level results. Greater Hollywood results are available but serve only illustrative purposes as they are not directly comparable to any official service geography. 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 onramps and peripheries—were reserved for professional counting teams. Vetting produced 8 such tracts, which were surveyed by outreach personnel from The Center and Covenant House during daylight hours on 25 February (circa XXX PM). The remaining 31 tracts were divided among the volunteer vehicle-based teams and surveyed beginning at 7.00 PM. Table ?? 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 contact number for in-field issues.

Examples of each of the above documents are included in the Appendix.

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

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



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. The grey lines above show census sub-tracts used by LAHSA but ignored in this count.

- 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.

All teams were deployed to their tracts by **XXX PM** and returned by **YYY PM**.

Upon returning, organizers approached each team with a tablet or laptop computer. Counters verbally read-off their results for each category as organizers entered them into a google form/spreadsheet. The organizer read back the results for confirmation before recovering all materials—including hand-written tallies—from the volunteers. Volunteer email addresses were also retained for follow-up.

Once all materials were collected, the organizers convened to cross-check the electronic records with the physical tally sheets and identify any uncounted areas. Follow-up teams were then dispatched to count the latter. This was necessary in only XXX instances.

Given that the number of volunteer teams exceeded the number of tract assignments, a subset of randomly selected tracts were chosen to be counted by multiple teams. Such duplicate measurements are useful for understanding random counting errors and are discussed in Sections 2.3 and 4.

2.1.1 Volunteer Training

Teams underwent mandatory, approximately 30 minute Zoom-based training sessions before arriving for the count. Each participant was also required to watch the official 2020 LAHSA count training video and sign participation waivers.

The training covered the motivation for the count, an overview of the survey geography (the CoCs), team roles, and descriptions of the classes of unhoused individuals/dwellings, including photographic examples. 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 final results could be analyzed 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 avail-

able 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 know 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 unsheltered 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 unsheltered 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:

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

where $\mathscr{G}(\mu, \Sigma)$ is a Gaussian random number with mean μ and standard deviation Σ , 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

4 Discussion

4.0.1 Null Entries

The minor issue is null entries. As stated in Section 2.1.1, some tracts may be relatively free of unhoused people. In these instances, many raw data will read "0." This is the best estimate of the relevant count in that geography at the time of inspection, but, due to Poisson noise, it is consistent with a range of small but non-zero values for the *true* count one might expect to find at any given time in that area. As such, null entries must be allowed to

The spreadsheet of raw count data was downloaded from the internet before passing it through a number of programs (written in IDL) to:

5 Summary

A Example Documents