



**University of Southern California (USC)  
Sol Price School of Public Policy**

**PPD 631 – Geographic Information System for Public Policy, Planning &  
Development  
Fall 2018, Prof. Barry Waite & Bonnie Shrewsbury  
End-of-Term Project Paper**

## **Where to Locate a New Homeless Shelter in Los Angeles**

November 19, 2018

Dong Il Choi ([dongilch@usc.edu](mailto:dongilch@usc.edu)) &  
Eldar Dyussetayev ([dyusseta@usc.edu](mailto:dyusseta@usc.edu))

## Introduction

While permanent housing, often coupled with supportive services, is the best way to end homelessness, many individuals and families need short-term stabilization before they can find housing that will meet their long-term needs. ‘Emergency housing’ is short-term accommodation for people who are homeless or in crisis. At an emergency housing facility, they can get basic necessities, such as a place to sleep, shower, do laundry, get clothing, and eat or get money for food.

LA city government is considering the setup of an emergency housing. It proposed several sites for a new shelter, however, people most of whom are residents of the areas nearby the proposed sites, e.g. Koreatown and Echo Park, are protesting their neighborhood from being selected as the final decision. Eric Garcetti, Los Angeles Mayor, declared a “shelter crisis” to provide emergency housing to some of the estimated 25,237 unsheltered homeless residents who call the city home.<sup>1</sup> This is a typical case of NIMBY (Not In My Back Yard) situation.

	
<p>Koreatown</p>	<p>Echo Park</p>

<sup>1</sup> <https://la.curbed.com/2018/4/16/17243382/los-angeles-homeless-shelters-garcetti-plan>

## **Research Topic**

There are, however, lots of homeless people to be sheltered. To have homeless shelters is not only for the homeless but also for those who live in the neighborhood. It is essential and inevitable to discuss and agree on sheltering this population and its appropriate location. This research aims to provide some rationale on which they can discuss this issue, utilizing Geographic Information Systems (GIS) as one of the most appropriate tools for approaching it – **where to ‘locate’ new homeless shelters.**

## **Data and Sources**

Many aspects including accessibility and peripheral environment could be the criteria for choosing a location for homeless shelters. For this research, however, 1) the distribution of homeless population and 2) rent price will be used for criteria to assess the proposed location for new shelters. Homeless shelters which are far from where the homeless are located or staying would be useless or inefficient, and if the rent is too expensive, it would be difficult to maintain the facilities. The currently proposed sites by the city government are government-owned properties and their high property value can serve as opportunity cost as the government could sell them and purchase lower cost properties for homeless shelters. Therefore, the rent price can serve as a good a criterion for this research.

4 sets of data, 1) locations of current homeless shelters, 2) proposed sites for new shelters, 3) homeless population and 4) rent price in City of Los Angeles, were gathered for this research.

**(1) Locations of current homeless shelters**

We visited the official website<sup>2</sup> of Los Angeles Homeless Service Authority (LAHSA) for information of current emergency housing and found the addresses of 16 emergency housing and shelters. We copied and transferred the addresses into an MS-Excel file that can be applicable at ArcMap.

**(2) Proposed sites for a new shelter**

Curbed Los Angeles (CLA) reported that nine sites were being considered for LA’s new emergency homeless shelters to go on May 11, 2018.<sup>3</sup>

- | <b>Proposed shelter sites</b>   |
|---|
| <b>(1) Van Nuys:</b> 7600 Tyrone Avenue                                 |
| <b>(2) North Hollywood:</b> 11471 Chandler Boulevard                    |
| <b>(3) North Hollywood:</b> 11231 Magnolia Boulevard                    |
| <b>(4) Studio City:</b> 11220 Ventura Boulevard/12225 Ventura Boulevard |
| <b>(5) Hollywood:</b> 1533 Schrader Boulevard                           |
| <b>(6) West LA:</b> 11010 Santa Monica Boulevard                        |
| <b>(7) Koreatown:</b> 682 South Vermont Street                          |
| <b>(8) Vermont-Slauson:</b> 5800 South Figueroa Street                  |
| <b>(9) Chinatown:</b> El Pueblo Parking Lot #5                          |

We copied and transferred these addresses into an MS-Excel file that can be applicable at ArcMap as well.

---

<sup>2</sup> <https://www.lahsa.org/>

<sup>3</sup> <https://la.curbed.com/2018/5/11/17345476/los-angeles-homeless-shelters-emergency-locations/comment/474816577>

### **(3) Homeless population**

LAHSA has data of homeless population by census tract downloadable as the form of MS-Excel file on their official website<sup>4</sup>, which was last updated on August 23, 2018. We downloaded the data and manipulated the ‘tract’ column of downloaded excel file with ‘concatenate’ function because the tract identification numbers were different from the official ones. (e.g. 101110 -> 06037101110)

### **(4) Rent price**

For the rent price, we visited Simply Analytics’ official website<sup>5</sup> and downloaded the shapefile of current rent price (median) in LA city by census tract.

## **Combining Data and Mapping**

### **(1) New Homeless Shelter Proposal by Homeless Population**

The first stage, we added shapefile of LA City that we downloaded from Symply Analytics. Then, we added the MS-excel file with information about current and proposed homeless shelters.

Secondly, we joined the homeless location census tract data to the shapefile of LA City. It showed us the concentration of homeless population by census tracts. We used the Layer Property and Symbology tool to visually demonstrate concentration of homeless population on the map. Then, we added to the ArcMap excel file of current and proposed shelter locations. Then, we geocoded these two tables with locations in our ArcMap using Price School credits. It

---

<sup>4</sup> <https://www.lahsa.org/homeless-count/home/>

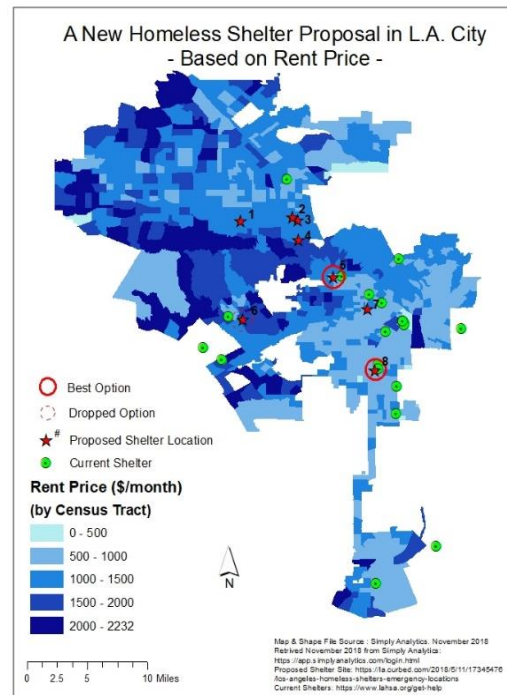
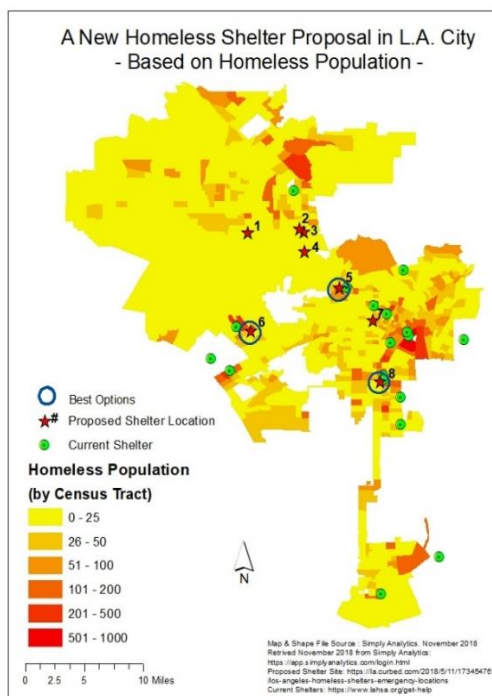
<sup>5</sup> <https://app.simplyanalytics.com/>

is shown on ArcMap with location indications. We marked ‘stars’ for proposed shelter locations and ‘circles’ for current locations.

## (2) New Homeless Shelter Proposal by Rent Price

To demonstrate the relationship between rent price and location of homeless shelters, we downloaded shapefile of LA City rent price from Simply Analytics. Then, we opened ArcMap and added this shapefile in ArcMap. Using the layer property, we defined intervals and colors of the symbols. It allowed us visually to identify the most and the least expensive areas of the City on the map. Then, we also added in our ArcMap the excel table with the addresses of current and proposed shelters. Finally, we geocoded these locations on ArcMap.

## Results (2 Key Maps)



## Conclusion

After mapping the proposed sites on two different maps, we could conclude that sites #5, #6, and #8 are best choices for a new shelter in terms of homeless population because of their higher density in these areas, and sites #5 and #8 in terms of rent price as the level of rent cost in these areas are lower than other locations.

### **Best Locations for a New Homeless Shelters**

#### **(by Homeless Population)**

**(5) Hollywood:** 1533 Schrader Boulevard

**(6) West LA:** 11010 Santa Monica Boulevard

**(8) Vermont-Slauson:** 5800 South Figueroa Street

### **Best Locations for a New Homeless Shelters**

#### **(by Rent Price)**

**(5) Hollywood:** 1533 Schrader Boulevard

**(8) Vermont-Slauson:** 5800 South Figueroa Street

We can, therefore, conclude that #5 (**Hollywood:** 1533 Schrader Boulevard) and #8 (**Vermont-Slauson:** 5800 South Figueroa Street) are overall best options to choose for a new homeless shelter in LA city. There can be, of course, many different criteria to assess a certain location for homeless shelters besides ‘homeless population’ and ‘rent price’, but the purpose of

this research is to assist people in making a reasonable decision on locating a new homeless shelter based on more objective grounds using GIS as an effective tool.

**Best Locations for a New Homeless Shelters**  
**(Overall)**

(5) **Hollywood:** 1533 Schrader Boulevard

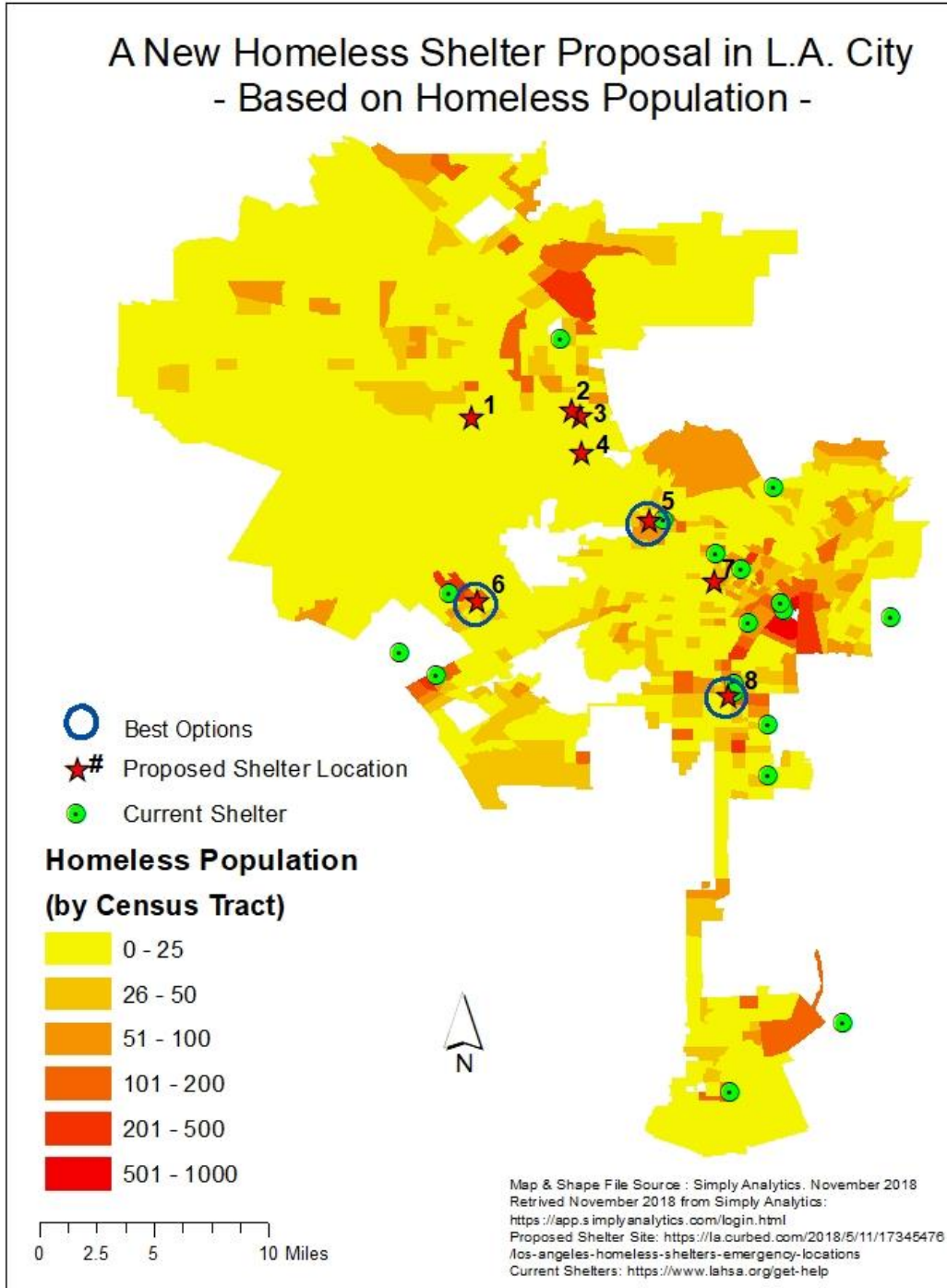
(8) **Vermont-Slauson:** 5800 South Figueroa Street

With the conclusion of this research, the city government and residents in LA city can begin their discussion on the selection of an optimal shelter location on which a majority if not everyone can agree. The final decision may or may be identical with our conclusion, but it would be meaningful if this research could contribute to a more reasonable and productive discussion and outcome.

For future study, it is recommended to have data on the capacity of each shelter added to this analysis. With data on the capacity of current homeless shelters and homeless population in each area, the optimal capacity and location for a new shelter could be further derived. As we were not able to access and gather such data for this project, it is recommended for further studies to combine them with our location data and map for a more comprehensive and ‘ideal’ location for a new homeless shelter.



Appendix 1.



Appendix 2.

