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## **Title**

Bus Shelter Inequity in Unincorporated Los Angeles County

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# Bus Shelter Inequity in Unincorporated Los Angeles County

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#### Issue

On average, Metro bus riders spend half of their travel time simply waiting for the bus. More than an amenity, bus shelters are fundamental to ensuring riders have a level of comfort, dignity, and safety while they wait for the bus. With temperatures increasing across Los Angeles County, bus shelters are also crucial for providing shade and contributing to the region's larger climate adaptation strategy.

To begin understanding why some places have bus shelters and others do not, research must first identify places of disinvestment. Organizations like Investing in Place have provided rich qualitative data that attest to the dearth of bus shelters in Los Angeles County. However, only with a recent study from the Lewis Center has there been empirical research on a countywide scale to quantify these claims. As such, this research seeks to build on these findings and conduct further analysis focused on three key research questions:

- 1. What is the distribution of bus shelters in Los Angeles County and its unincorporated areas?
- 2. What are priority bus stops in need of a bus shelter in unincorporated areas?
- 3. What is the process for funding, building, and maintaining bus shelters in unincorporated areas?

## **Study Methods**

This study focused specifically on L.A. Metro bus stops in Los Angeles County, analyzing unsheltered bus stops together with boardings to create a unit that is referred to as "unsheltered riders." This unit of analysis helps to differentiate the magnitude of use for each unsheltered stop, rather than treating each unsheltered stop as equal. Additionally, the study analyzed the distribution of unsheltered riders across the county and between supervisorial districts. Further, this

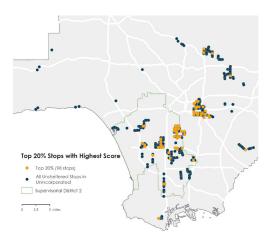
research prioritized unsheltered bus stops in unincorporated Los Angeles County through a scoring system that weighs the following measures: socioeconomic equity, heat, tree shade, wait times, and boarding. The researcher also conducted qualitative interviews with LA County Public Works employees, alongside a document review of the agency's bus shelter contracts.

This study was prepared for Supervisor Holly J. Mitchell, as such the study's findings focused on the 2nd District — which includes portions of Los Angeles, Inglewood, Compton, and El Segunndo — and its comparisons to the rest of the county.

## **Research Findings**

The 2nd District has a significant share of the county's boardings, bus stops and unsheltered riders. Of all supervisorial districts, the 2nd District has the greatest number of boardings, making up 35% of the county's total boardings, followed by the 1st District at 28%. Notably, the 2nd District accounts for one-third of the county's unsheltered bus stops but its unsheltered riders make up nearly 40% of all unsheltered riders countywide.

Unsheltered stops in the 2nd District have the highest boarding levels and are more likely to be in neighborhoods with higher socioeconomic and transit-related needs, and less access to shade. Three out of the top five unincorporated communities with the highest unsheltered rider counts in L.A. County are located in the 2nd District. Eighty percent of unsheltered riders in unincorporated areas are located in Metro Equity Focused Communities (EFCs), with the greatest share of these in the 2nd District. Metro identifies EFCs as areas with a high concentration of historically and disenfranchised households that are most likely to benefit



#### Figure 1.

Figure 1. Top 20% of unsheltered bus stops with highest scores across unincorporated Los Angeles County

from new mobility investments. When it comes to heat and shade, the 2nd District's unsheltered riders tend to wait at cooler stops, but are less likely to have access to parkway tree shade compared to the rest of the county.

## After prioritizing unsheltered Metro bus stops in unincorporated Los Angeles County, almost two-thirds of the top unsheltered stops are located in the 2nd District.

As seen in Figure 1, the top 20% of unsheltered stops (based on a score of equity measures) are concentrated in only two unincorporated communities: East Los Angeles in the 1st District and Florence-Firestone in the 2nd District. Fiftyseven (58%) of the top 20% stops are in the 2nd District, and specifically, Florence-Firestone has the greatest number of unsheltered riders compared to all other unincorporated communities across the county and within the 2nd District.

# The high cost of bus shelters has made replacing old adshelters difficult; in addition, the process for erecting nonad shelters is primarily guided by number of boardings and/or its inclusion in a capital improvement project.

Bus shelters are expensive, with hard costs up to \$35,000 and an additional 30-40% for soft costs. County-owned bus shelters are constructed and maintained primarily using Proposition A, Local Returns funds. Funding and the high cost of shelters, along with meeting site conditions, continue to be the greatest challenges for building shelters in unincorporated areas.

#### **Recommendations**

Dedicate specific resources and prioritize new bus shelters for Florence-Firestone in the 2nd District. Florence-

Firestone has the greatest bus shelter needs, not only in the 2nd District, but also across all unincorporated communities. Strategic resources for constructing bus shelters will be an effective use of public dollars and provide critical support to communities that will benefit the most from transit-related investments.

## Public Works should develop an equity-focused prioritization scheme to guide where bus shelters get

**built next.** Bus shelter placement should be determined by factors beyond boarding metrics and potentially unrelated capital improvement projects. Public Works needs to develop a holistic prioritization model for stops located across the county's unincorporated communities, led by equity factors that will ensure bus shelters are built in the neighborhoods that need them the most.

Future research should consider the following: utilize stops from other transit providers; conduct a refined approach to accessing tree shade using Public Works parkway tree inventory; and incorporate the location of other points of community interest, such as schools, hospitals, and grocery stores, to more holistically assess and prioritize the stops with shelter needs.

#### For More Information

Yoon, A. (2023). Bus shelter equity: A study of the distribution of bus shelters in Los Angeles County and unincorporated communities (Master's capstone, UCLA). Retrieved from: https://escholarship.org/uc/item/0fx2c8pn

#### Resources

Investing in Place. (2022, September 29). The Bus Stops Here. ArcGIS StoryMaps. https://storymaps.arcgis.com/stories/ad41ec27acf242388018263dba5bc185

Brozen, M., Engelhardt, C., & Lipman, E. (2023). Are LA bus riders protected from extreme heat? Analyzing bus shelter provision in Los Angeles County. UCLA Lewis Center for Regional Policy Studies. https://www.lewis.ucla.edu/publications/do-labus-riders-have-shelter-from-the-elements/

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