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<https://escholarship.org/uc/item/57c4b46k>

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### **Publication Date**

2022-07-19

# The Need for Thoughtful Bus Lane Strategies to Enhance Street Safety in Los Angeles

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## Issue

Los Angeles has expanded bus lanes from 4 miles to more than 27 miles over the past 10 years. Bus lanes are lanes designated exclusively for buses on general traffic streets.

Los Angeles ranked second in the nation for pedestrians killed by motor vehicles in 2015, and since then, pedestrian deaths have increased by 36%. In a city where traffic fatalities are rampant, it is still unclear how bus lanes affect street safety for all users.

This study asks:

- » Are there differences in severe and fatal traffic collisions among streets with all-day bus lanes, peak-hour bus lanes, and no bus lanes?
- » Can these differences be explained by the trade-offs made to accommodate each bus lane type?

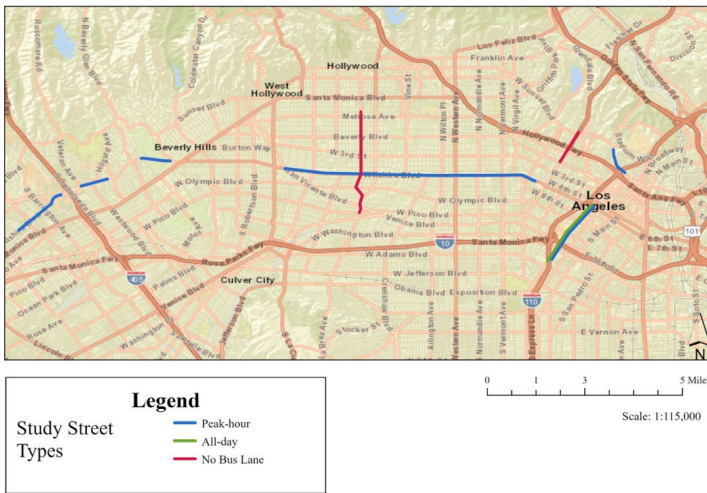
## Study Methods

This report focuses on four Los Angeles bus lanes (three peak-hour lanes and one all-day lane) and two streets that currently have no bus lanes, but that the Los Angeles Department of Transportation (LADOT) and LA Metro have identified as candidates for bus lanes in the near future. See Figure 1 for the study locations.

Five collision metrics were analyzed as safety indicators: 1) collisions, 2) fatal collisions, 3) severe collisions, 4) pedestrian-involved collisions, and 5) bicyclist-involved collisions. A descriptive statistical analysis of collision data was then conducted to understand how street safety may have shifted after bus-lane installation. Following the statistical analysis, site visits were conducted to a corridor with a decrease and increase in collisions to assess differences in the bus-lane implementation and context that may have contributed to divergent safety outcomes.

## Findings

- » Collisions increased during bus lane hours on all but one of the studied corridors, but became less severe, less fatal and involved a smaller proportion of pedestrians.
- » The proportion of severe-injury and fatal collisions either stayed constant or decreased on all the studied bus lane corridors.
- » The proportion of pedestrian-involved collisions either stayed constant or decreased on peak-hour bus lane corridors but increased on the one analyzed all-day bus lane corridor. The all-day corridor hosts the highest pedestrian count in the city which may have contributed to its adverse outcomes for pedestrians.
- » Bicyclists experienced mixed outcomes on peak-hour bus lane corridors but experienced a decrease in collisions on the one analyzed all-day bus lane. The all-day corridor hosts a separated bike lane, a design element lacking on the other studied bus lane streets that may have contributed to this variation.
- » Collisions either stayed constant or decreased on streets with no bus lanes, but outcomes for other safety indicators were mixed.
- » Wilshire Boulevard between Park View Street and Western Avenue was the only corridor that saw a decrease in collisions during bus-lane hours.
- » A qualitative analysis of this corridor and a corridor with a high increase in collisions revealed that the difference in collision frequency had to do with block length, vehicle speeds, and the presence of controlled crosswalks. Additionally, the increase in bicyclist-involved collisions on both corridors was due to a lack of bicycle infrastructure. Parked cars also commonly obstructed the bus lane on both corridors, specifically near restaurants after 6 p.m.



**Figure 1.**  
Location of Study Streets

## Recommendations

The accommodations made for the bus lanes studied were not enough to enhance safety, be it peak-hour or all-day lanes. Not a single corridor improved on all safety indicators after bus-lane installation. Still, bus lanes can enhance street safety if installed in tandem with additional context-sensitive, complementary design elements. Moving forward, we recommend that Los Angeles:

- » **Paint bus lanes red.** The bus lanes in this study did not have red-painted lanes. Studies show that red-painted bus lanes improve safety and are less likely to be blocked by vehicles (Safron et al., 2014).
- » **Operate offset-running bus lanes.** The bus lanes in this study almost exclusively operated in the curbside lane. Offset bus lanes occupy the travel lane adjacent to the curb lane. Studies show that offset-running bus lanes are more efficient and increase street safety by balancing transit, traffic, and pedestrian needs best (Beaton et al., 2013).
- » **Provide temporary parking on parallel or collector streets during bus lane hours.** The majority of cars illegally obstructing bus lanes were from drivers briefly visiting a business. Areas with a high level of commercial activity, especially restaurants, should be targeted.

- » **Limit the possibility for left turns.** An LADOT report found that left-turning fatal or severe pedestrian crashes outnumber right-turning crashes by three to one (LADOT, 2017). Left turns should be limited to major intersections with turn signals.
- » **Install controlled crosswalks at intersections and on long blocks.** Installing more traffic signals at intersections helps control speeds and gives pedestrians more options to safely cross the street and is a key feature of the Wilshire Boulevard corridor between Park View Street and Western Avenue.
- » **Study new and forthcoming bus lanes.** Since 2019, at least seven new bus lanes have been installed in Los Angeles. In 2021, bus lane corridor segments on Figueroa Street and Wilshire Boulevard received red paint. Future analysis is needed to measure how trends persist as the design of bus lanes evolves throughout the city.

## For More Information

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This capstone project was also supported by the