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Wheels for All: Ensuring Equitable Access to Dockless Mobility in Los Angeles

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Research Topic

As the Los Angeles Department of Transportation (LADOT) embarks on a one-year dockless mobility pilot program, both LADOT staff and the residents they serve have raised concerns over equity and access. Dockless mobility refers to dockless or free-floating bicycles, electric bicycles, and electric scooters available for short-term rental that have begun to proliferate in cities across the country. LADOT staff are currently using CalEnviroScreen 3.0 to identify disadvantaged communities where regulations incentivize operators to deploy their vehicles. However, CalEnviroScreen 3.0 is a metric developed by the state to identify communities likely affected by environmental injustices and as such prioritizes environmental exposure factors over those that may affect transportation access.

The purpose of this project was to first develop an access-focused Dockless Mobility Equity Map that locates the most socioeconomically and access-disadvantaged communities in Los Angeles. Using this map, LADOT staff could produce regulations that promote targeted dockless service. Second, this report identifies actions that LADOT staff can take during the one-year pilot and beyond to ensure equitable access in the Dockless Mobility Equity Map areas, including education, ridership data collection, and infrastructure improvements.

Main Findings

Based on a comprehensive literature review, the author identified the following factors to include in a dockless mobility benefit index:

- Socioeconomic factors: poverty, non-white population, limited-English speaking, low educational attainment, unemployment
- Spatial access factors: limited job accessibility by transit, limited job accessibility by walking, zero car households, low ratio of cars to adults

The top scoring neighborhoods, or those that would benefit most from dockless mobility access, are reflected in the Dockless Mobility Equity Map. These neighborhoods are within the San Fernando Valley, East Los Angeles, South Los Angeles, and the Harbor. After speaking with community-based organization representatives, the author found that major equity concerns for dockless mobility included user education and engagement, language barriers, inequitable enforcement (i.e., racial profiling), and inadequate infrastructure.

Study

The researcher developed the Dockless Mobility Equity Map through the following steps:

- I. Constructed a dockless mobility benefit index using a method similar to CalEnviroScreen. Through a literature review, the researcher identified factors that reflected socioeconomic and spatial access disadvantage and built a scoring system that incorporated these variables. Data from the U.S. Census

KEY TAKEAWAYS

- Transportation equity maps, such as those developed for dockless bike and scooter access, should incorporate pertinent factors related to socioeconomic and spatial access disadvantage.
- In the City of Los Angeles, communities within the San Fernando Valley, East Los Angeles, South Los Angeles, and the Harbor would benefit most from dockless mobility access.
- LADOT should incentivize or require dockless mobility companies to operate in the Dockless Mobility Equity Map areas developed for this project.
- To ensure equitable access in these areas, LADOT should conduct outreach and education, collect ridership and citation data, set equity goals, and promote infrastructure improvements.

5-Year American Community Survey (2016-17) and the University of Minnesota’s Access Across America project (2017) were used to construct this index.

2. Identified the block groups in Los Angeles that scored in the 75th percentile of the index.
3. Used the Optimized Hot Spot Analysis tool in GIS to create a cohesive border around the top scoring neighborhoods.

The researcher also held interviews with community-based organization representatives to better understand dockless equity concerns for these map-identified communities and gather recommendations for LADOT staff.

Recommendations

The author advises LADOT staff to take the following actions to ensure equitable access to dockless mobility:

- Incentivize or require dockless companies to operate in the Dockless Mobility Equity Map areas.
- Conduct in-depth outreach and engagement with these communities to learn about existing mobility challenges and dockless concerns, and educate residents on how to use dockless devices and how to access the cash option, non-smartphone option, and low-income pricing plan.
- Harness data gathered during the pilot to set equity goals for future regulations. Keeping track of outreach events, low-income pricing plan sign-ups, and trips taken in the Equity Map areas may be useful in determining future fleet and outreach requirements, as well as realistic equity goals for the city. Monitoring unlawful riding citations can help LADOT hold the Police Department accountable for patrolling neighborhoods fairly.
- Work with city partners and other teams in the Department to push for the prioritization of improved infrastructure in the Equity Map areas.

Dockless Mobility Equity Map

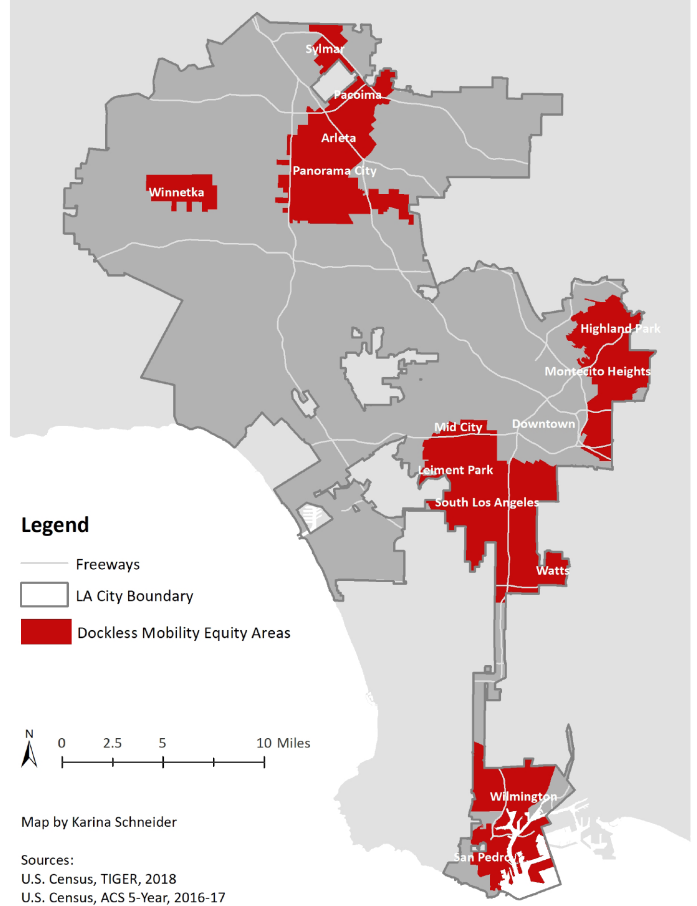


Figure 1. Communities within the San Fernando Valley, East Los Angeles, South Los Angeles, and the Harbor would benefit most from dockless mobility access.

For More Information

Schneider, K. (2019). *Wheels for All: Ensuring Equitable Access to Dockless Mobility in Los Angeles* (Master’s capstone, UCLA). Retrieved from: escholarship.org/uc/item/14gd6r3f4

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