PSR Pacific Southwest Region UTC — University Transportation Center

INNOVATIONS IN TRANSIT: An In-Depth Case Study of the City of Monrovia/Lyft Public Private Partnership

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Project Objective

Drawing on an in-depth case study of the GoMonrovia program, a public-private partnership between the City of Monrovia and Lyft, this study aims to evaluate whether such a partnership can help address the equity and sustainability issues associated with the First/Last mile challenge for increasing ridership in suburbia. The objective is twofold. First, we examine whether the program promotes transit access for disadvantaged transit-dependent populations. Second, we evaluate its potential to reduce car dependence.

Problem Statement

In recent years, a number of studies have explored whether transportation network companies (TNCs), such as Uber and Lyft, could be the "missing link" in conventional models of public transportation, by providing door-to-door on-demand rider services for the First/Last mile of a transit station. This issue is of particular significance in suburban contexts, where a) there has been a renewed emphasis on transit investments over the last two decades, and b) automobile dependence remains high and bus service rather poor. However, there is little evidence to date about whether partnering with a TNC can help enhance transit access in the suburban context. In the City of Monrovia, where GoMonrovia (a TNC project) has provided residents with subsidized Lyft rides within the city's boundaries (Fig. 1) since 2018, the relevant questions addressed in this study are:

Figure 1. City of Monrovia (20 miles northeast of LA)

1. Who are the first/last mile users? What are their socioeconomic and demographic profiles?
2. To what extent does the program meet the first/last mile mobility needs of Monrovia residents, especially those of low-income and/or transit dependent?
3. Can the public-private partnership (or PPP) be considered a new model for the emergent "transit suburbs," where subsidized TNC rides support transit ridership and reduce automobile dependence?
4. From an institutional and sustainability perspective, what are the lessons learned, and how or whether might this model be replicated in other suburban communities?

Research Methodology

The dataset includes individual trip data collected by Lyft on a monthly basis (March 2018 - February 2021); sociodemographic data at the census block group level from the American Community Survey; survey data collected in May 2021 through Lyft and social media. Mapping in GIS and multivariate regression methods support the analyses.
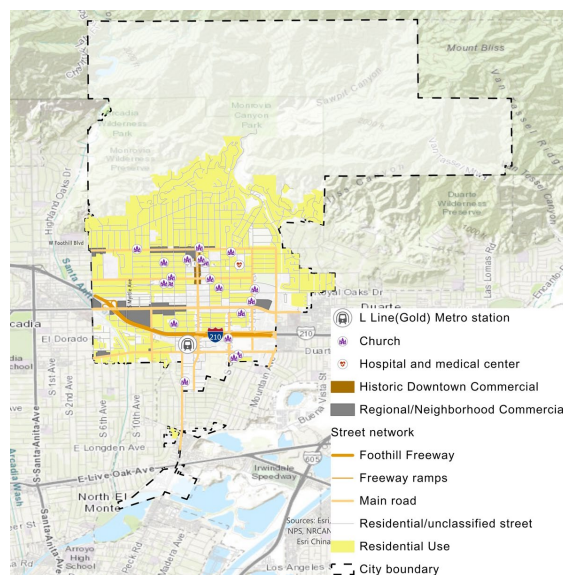
Results

In assessing the overall popularity of the GoMonrovia program, we find that monthly ridership has markedly declined since March 2019 (**Figure 2)**. Our analysis reveals three factors explaining this decrease: (1) increases in rider fees for all three tiers of service, with price hike for shared rides to Downtown Monrovia and its Metro station appearing especially impacted; (2) reductions in the program's service area, such as the removal of LA County destinations; and (3) the COVID-19 pandemic.

Figure 2. GoMonrovia trips by month and year, compared to program price per Classic and Shared ride
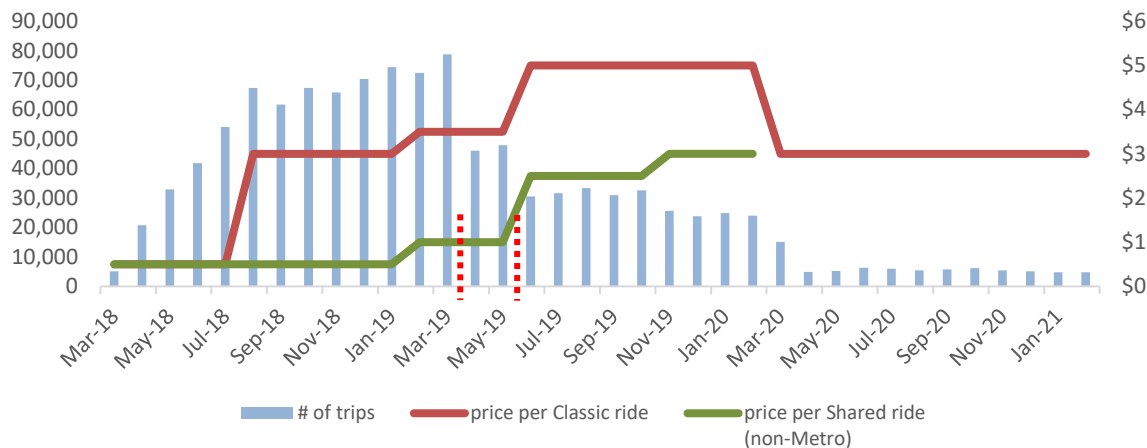
Note: Per red dotted lines, LA County removed from service area in April 2019, and City of Bradbury removed in June 2019

We also conducted a survey (~200 responses) to examine whether GoMonrovia has served as a first/last mile travel mechanism for transit-dependent households, and whether it has reduced users' dependence on personal vehicles based on regression models (see **Table 1**). We find that users without a personal vehicle and those living at least 1-mile from the Monrovia Metro station are more likely to use the program to access said station; however, we fail to generate similar evidence for low-income or retirement age users. Moreover, we do not find a significant substitution effect between GoMonrovia usage and personal vehicle usage. Our report makes three main recommendations for enhancing the impact of the GoMonrovia program. First, since City subsidies have been effective in promoting GoMonrovia usage, we recommend fully subsidizing GoMonrovia trips to/from the Monrovia Metro station. Second, since GoMonrovia's success as a first/last mile mechanism hinges on residents' willingness to ride the LA Metro system, we recommend a proactive partnership with LA Metro to identify synergies on joint initiatives. And finally, we recommend GoMonrovia to include its service area to include the El Monte Metrolink station to significantly improve first/last-mile connectivity.

Table 1. Significance and direction of estimates from regression models (predicted outcomes in blue)
Significance indicated at the 90% confidence level

	Using GoMonrovia to access Metro station (Pre-COVID)	Using personal vehicle (Pre-COVID)
Owns a personal vehicle	Negative	-
Uses GoMonrovia at least weekly	-	Insignificant
Lives < 1 mile from Monrovia Metro	Negative	Positive
Has a traditional full-time job	Insignificant	Positive
Identifies as female	Negative	Insignificant
Identifies as White alone, non-Latinx	Insignificant	Positive
Age 25 - 64 years (compared to < 25 years old)	Negative	Insignificant
Age 65 or older (compared to < 25 years old)	Negative	Insignificant
Has at least a Bachelor's degree	Positive	Insignificant
Earns $100,000 or above	Insignificant	Positive