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Policy Brief: Social Equity Impacts of Congestion Management Strategies

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Authors

Shaheen, Susan, PhD

Stocker, Adam

Meza, Ruth

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Social Equity Impacts of Congestion Management Strategies

Susan Shaheen, Ph.D., Adam Stocker, and Ruth Meza – Transportation Sustainability Research Center, UC Berkeley, December 2019
 For more information, contact Susan Shaheen at sshaheen@berkeley.edu.

Issue

Congestion is worsening and vehicle miles traveled (VMT) are increasing in many cities across the United States (U.S.) and California. State, regional, and local governments have implemented or are considering a range of measures intended to curb congestion and its negative effects on the economy, the environment, and public health. However, social equity implications must be accounted for when crafting, piloting, and deploying congestion mitigation strategies. At present, many of the social equity implications of congestion management strategies are not well understood and lack empirical research.

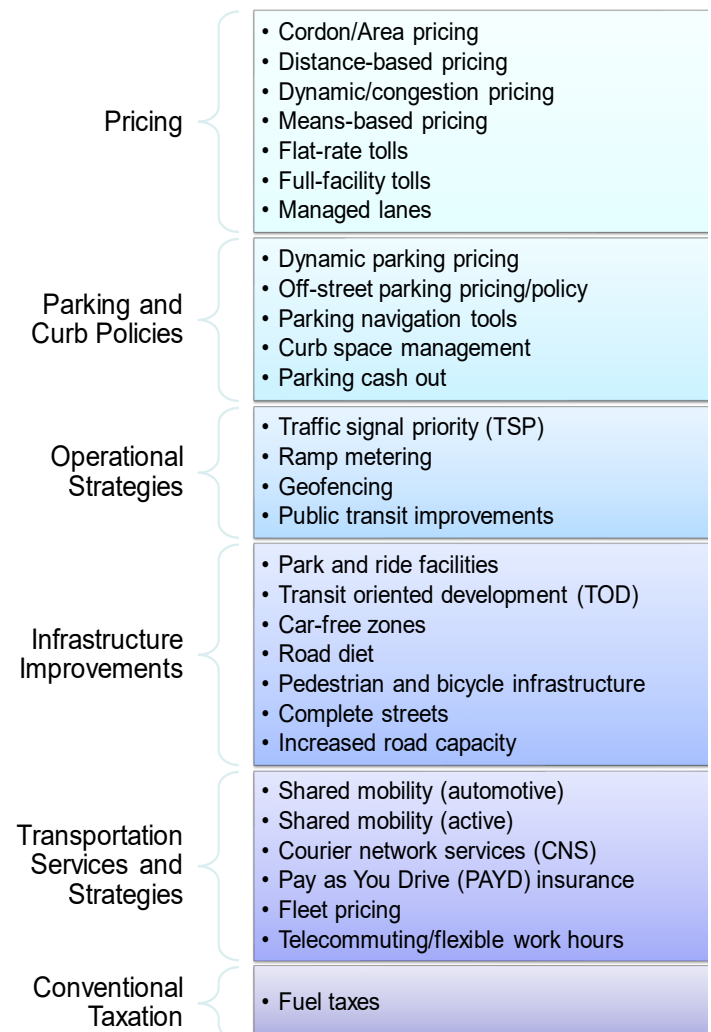
Key Research Findings

To better understand the equity implications of a variety of congestion management strategies, researchers at the Transportation Sustainability Research Center (TSRC) at University of California, Berkeley analyzed existing literature on congestion management strategies and findings from 12 expert interviews. The literature review applies the Spatial – Temporal – Economic – Physiological – Social (STEPS) Equity Framework¹ to identify impacts and classify whether social equity barriers are reduced, exacerbated, or both by a particular strategy. The congestion management strategies of interest were categorized into six broader categories: 1) pricing, 2) parking and curb policies, 3) operational strategies, 4) infrastructure changes, 5) transportation services and strategies, and 6) conventional taxation (see Figure 1).

The social equity impacts of congestion management strategies vary widely depending on the particular strategy, land-use and societal contexts, implementation details, and many other factors. Assessing the details of how congestion management strategies are implemented and who will ultimately benefit from installation are critically important for the success of a project in terms of achieving equitable outcomes.

While many different strategies exist that could reduce congestion, including parking policies, infrastructure changes, and shared mobility, pricing strategies were most often cited in the literature and among experts when discussing congestion mitigation measures. Most experts agreed that there is no “silver bullet” of congestion management strategies. Figure 2 shows some of the benefits and barriers of congestions management strategies that were identified during this research effort.

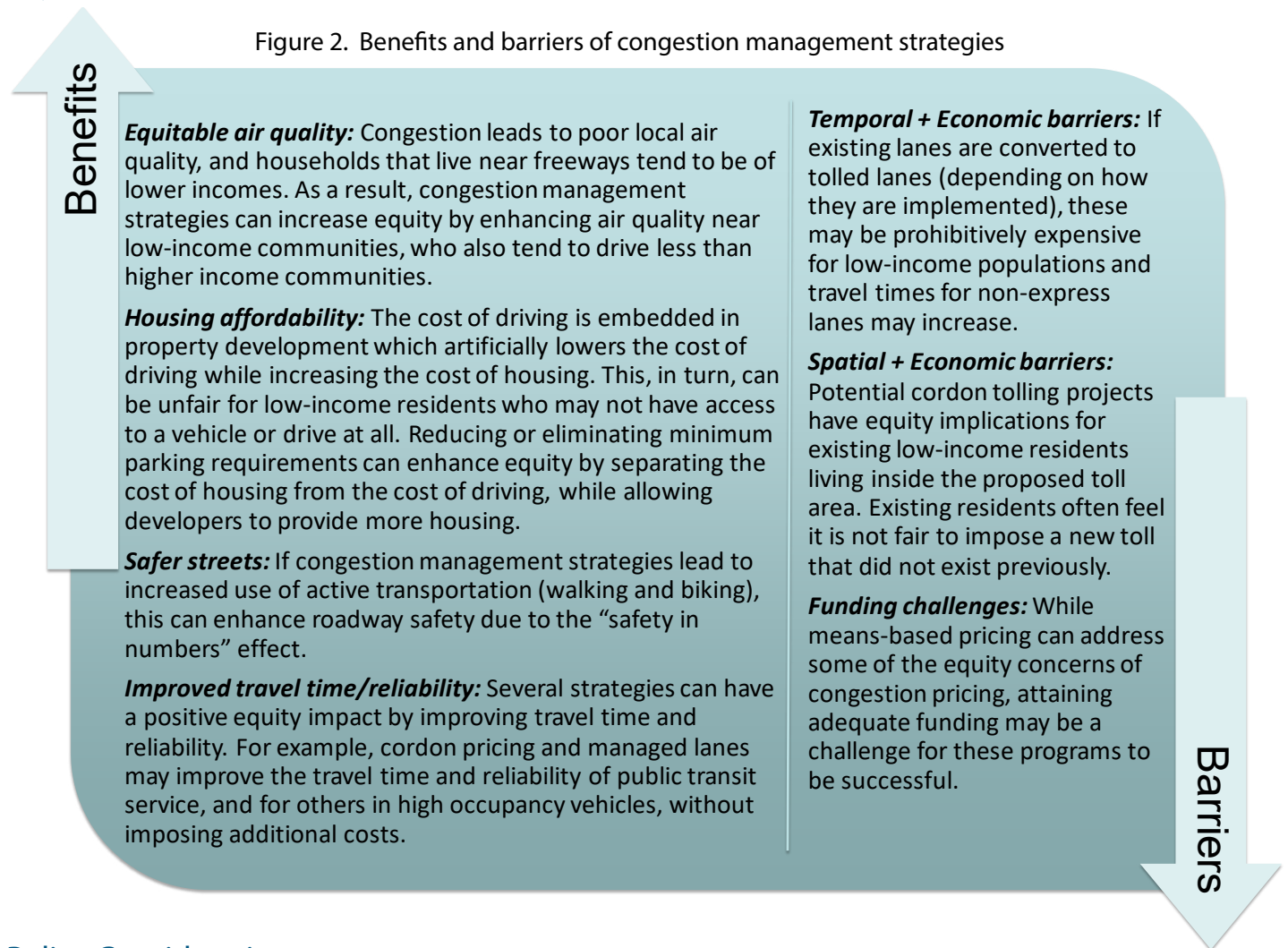
Figure 1. Inventory of Congestion Management Strategies



¹Shaheen, Susan, Corwin Bell, Adam Cohen, and Balaji Yelchuru (2017). “Travel Behavior: Shared Mobility and Transportation Equity.” U.S. Department of Transportation. Report# PL-18-007.

Key Research Findings (continued)

Figure 2. Benefits and barriers of congestion management strategies



Policy Considerations

Although the policy implications of congestion management strategies are highly context dependent, key considerations have emerged from this research:

- Timely and regular outreach to the all members of the public and stakeholders involved is key and must begin early in the planning process.
- If thoughtfully implemented, means-based pricing schemes could help mitigate some of the unintended negative equity impacts of congestion management strategies.
- As a growing number of cities, regions, and states across the U.S. consider and begin implementing congestion management strategies, high quality and

periodic data collection will be critical to ensure the accurate measurement of social equity impacts.

Further Reading

This policy brief is drawn from the research report titled: “Social Equity Impacts of Congestion Management Strategies,” prepared by Susan Shaheen, Ph.D., Adam Stocker, and Ruth Meza of the Transportation Sustainability Research Center (TSRC) affiliated with the Institute of Transportation Studies at the University of California, Berkeley. The report and this policy brief can be found at: https://ww3.arb.ca.gov/research/single-project.php?row_id=68591

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