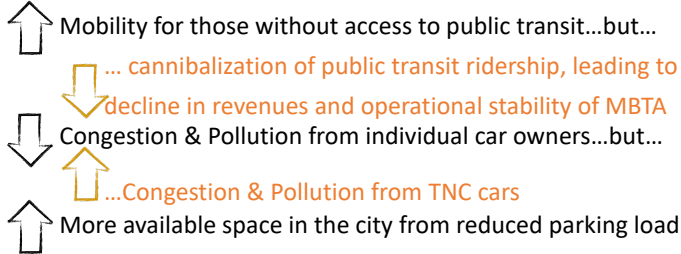


**1. Problem Statement**

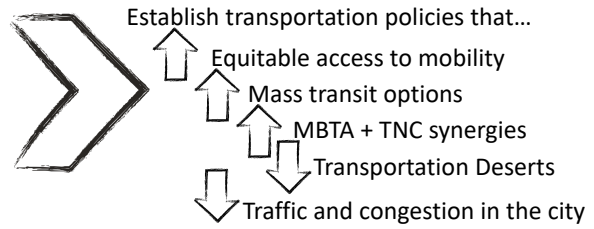
TNC ridership has grown rapidly with up to 96,000 rides per day in Boston in 2017 (up 460% from 2014) . The increase in TNC ridership has led to the decrease (heavy rail 2%, bus 6% in past year) in MBTA ridership and revenue. Thus, it is important to understand the dynamics between TNCs and MBTA and to examine the implications on the overall access to mobility and the sustainability of the city’s transportation ecosystem.

“We believe mobility is critical to creating societal progress and improving lives around the world.”  
-Toyota Mobility Foundation-

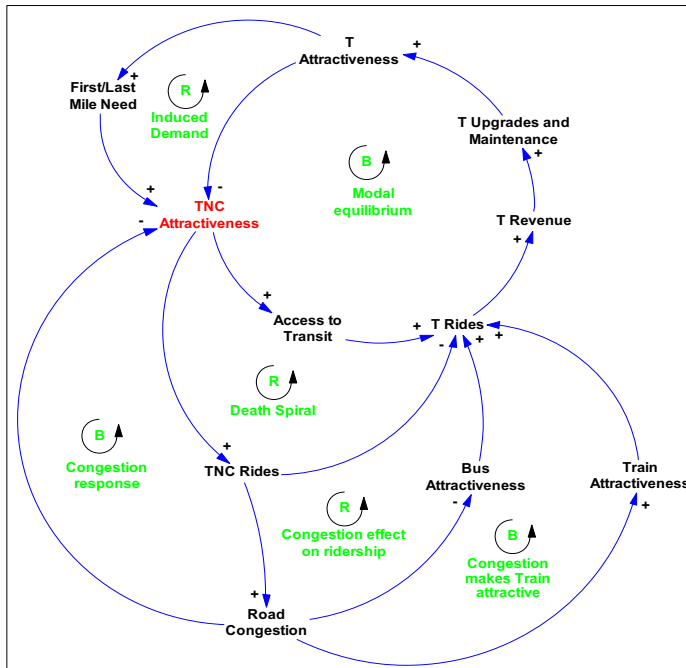
**Current State: Increase in TNCs means**



**Desired State**



**3. Ridership Dynamics between TNCs and the MBTA**



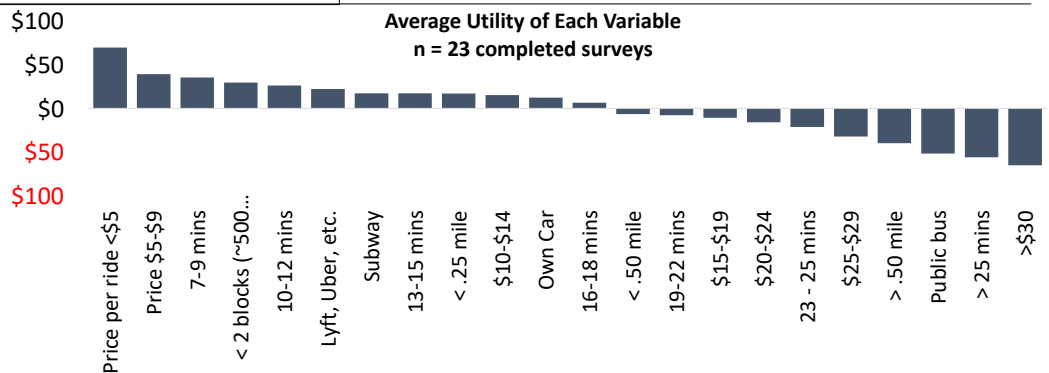
Finding solutions to this problem requires all stakeholders to engage in a long-term view, focused on system sustainability. Today, a lack of understanding of the full system makes planning and policy making difficult.

Current literature on the topic is focused on the types of trips riders make rather than analysis on motivations for the transportation decisions.

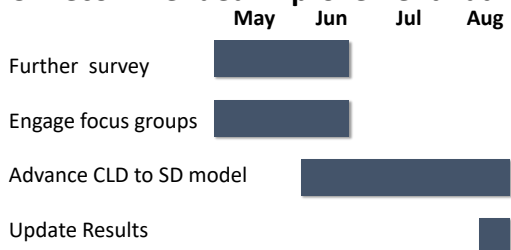
Because of this perceived gap, we based the construction of our causal diagram on the idea of how a rider chooses between public transit and a TNC for any given ride, assuming that both options are equally accessible. In other words, what makes one option more attractive and the other less attractive. The diagram shows the key dynamics among TNCs, MBTA and selected variables.

**4. A Test Survey Conducted test Utility of TNCs and MBTA Attractiveness**

Based on initial utility curves from our survey, TNCs could play a vital role connecting transportation deserts via last mile service



**5. Recommended Improvement Path**



**6. Future Work**

Project team recommends the refinement and broader distribution of a choice-based survey, testing and refining the mixed utility of certain variables. In particular, a focus on mixed-use rides and the last mile might more acutely focus the analysis on the area with highest potential for impact.

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