

To Partner or not to Partner?

Exploring the Relationship Between Transit Agencies and TNCs

Background

Work Approach

As part of a Comprehensive Operations Analysis for VIA, San Antonio's transit system, Cambridge Systematics (CS) conducted an exploratory analysis of TNC subsidies along underperforming transit routes. Like many metropolitan areas, San Antonio has a dense urban core with lower density dispersed development along the city's periphery. VIA faces the critical challenge of providing service coverage to these areas under significant financial constraint.

Case studies were used to determine where TNCs can compliment transit, how to leverage the benefits, and what operational parameters should be considered in transit agency-TNC partnerships. Traffic data from the regional travel demand model revealed that nearly 80% of trips within the underperforming route TAZs are off-peak non-commute trips. CS mapped these trip patterns in comparison to estimated ridesharing fares to and from the underperforming route TAZs (Figure 1). These fares were compared to the average transit trip subsidy to evaluate potential cost-savings (Figure 2).

Case Studies

Program Overview

Outcomes/Lessons Learned

Direct Connect: 50% subsidy up to \$3.00 for any trip in the county to/from transit facility.

Transit Disadvantaged: 23 free rides/month from 9pm – 6am for qualified low-income residents.

On-Demand Paratransit Pilot Program: \$2.00 base user fee, MBTA subsidizes up to \$13.00 for eligible users from 5am to 1am.

Peak-hour service between downtown and residential neighborhoods in dynamically routed 15 –passenger vans. Users receive 10 free rides, then pay \$1.50 per ride. **Program was discontinued due to low ridership.**

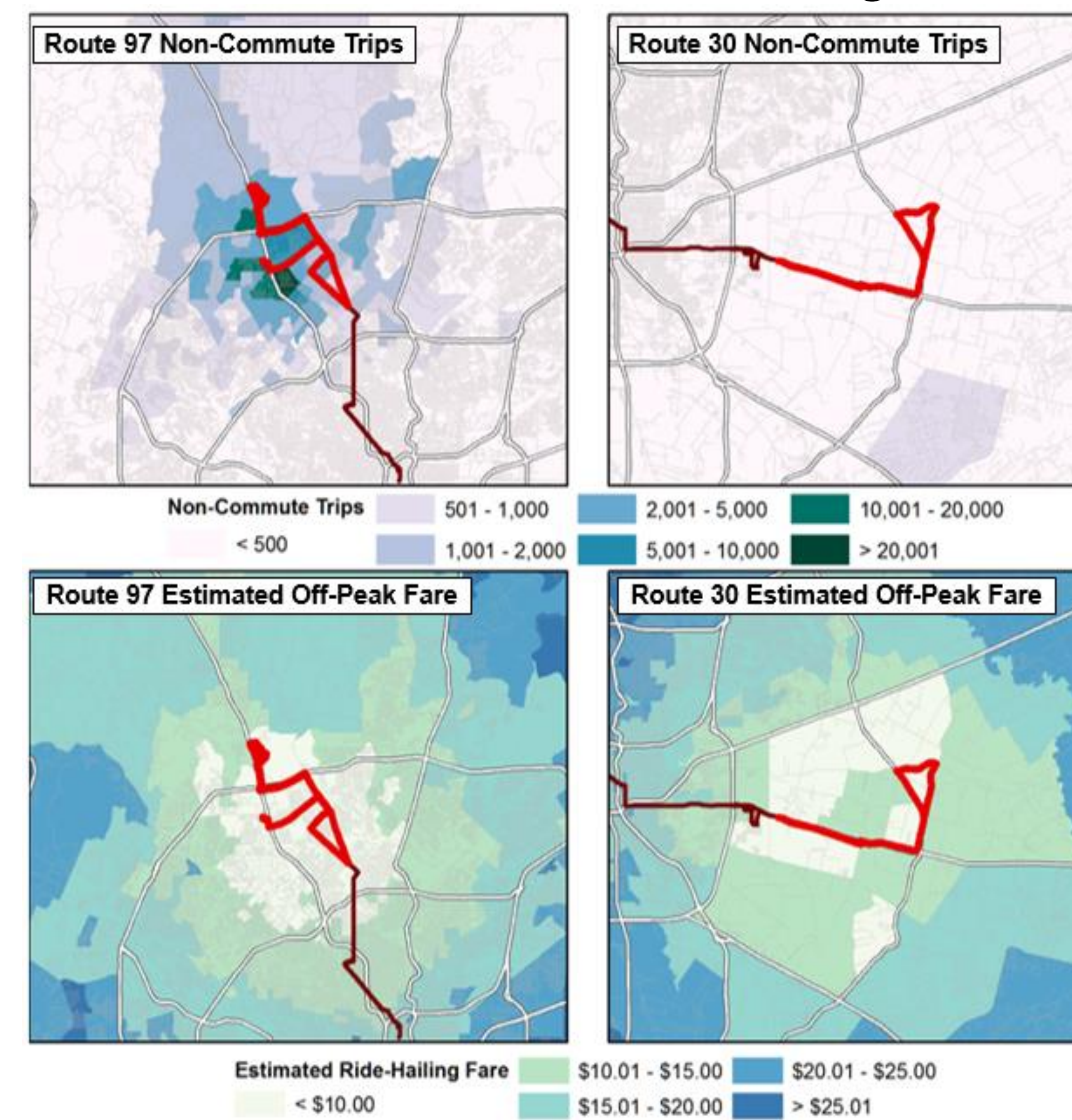
- Reliability, safety, and cost-savings to users
- Telephone dispatch service expands access
- Coordination across staffing efforts/data collection

- Projected 60% cost-savings
- Reduced passenger fares and wait times
- Reduced demand for in-house paratransit service impacts driver employment
- Integration with fixed-route transit may expand service area

- Operationally successful partnership
- Marketing is key
- Must consider trip purpose, time, and location
- Experimentation leads to innovation

Analysis

Figure 1. Suburban and Rural Trip Origins and Destinations vs Ride-Hailing Fare



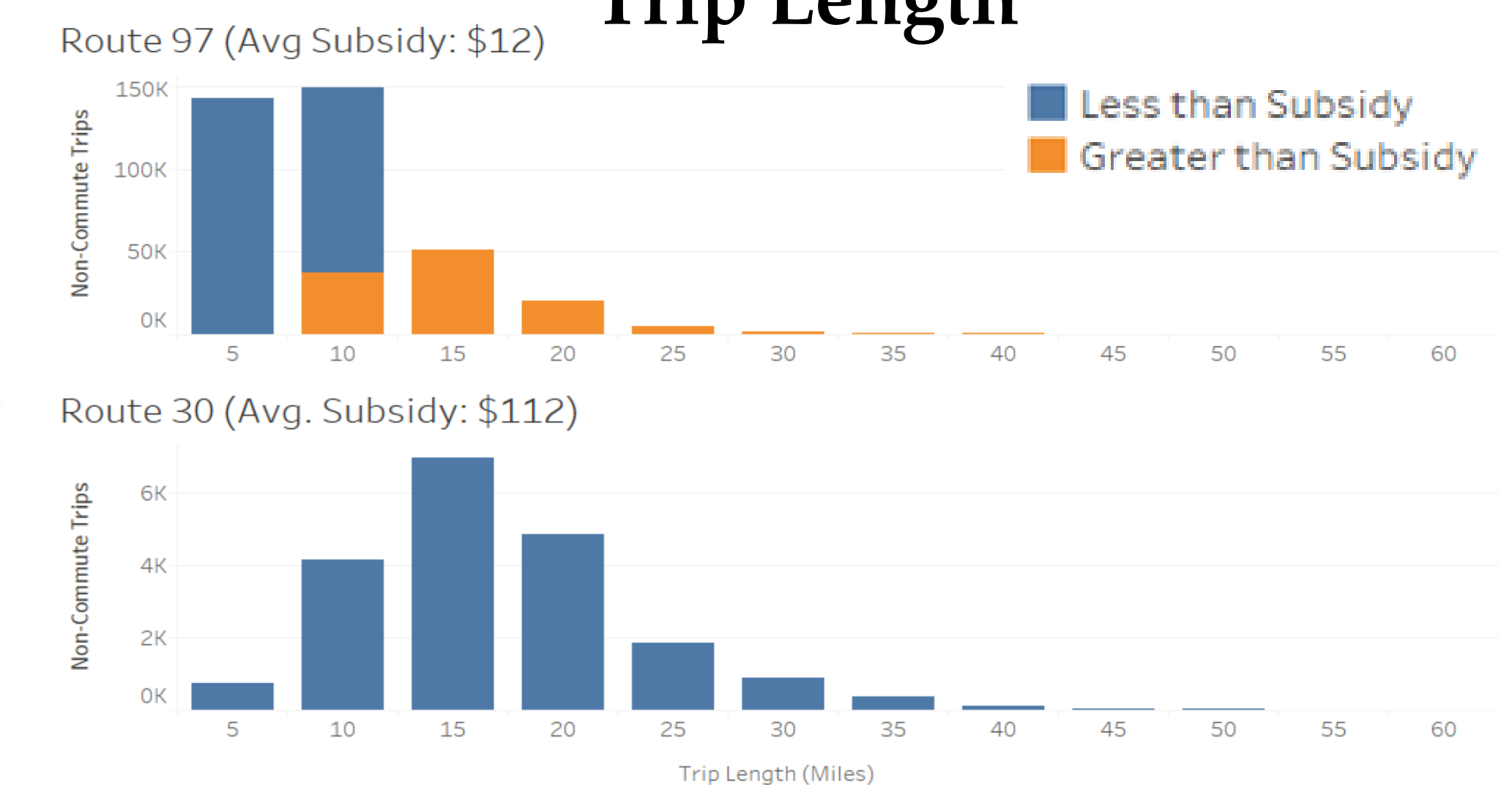
Route 97

- High trip density near underperforming segment.
- Relatively low per-trip transit subsidy.
- Majority of trips within 10 miles would cost less to subsidize via ride-hailing.

Route 30

- Low trip density.
- High per-trip transit subsidy.
- Viable segment to eliminate transit service and subsidize ride-hailing.

Figure 2. Ride-Hailing Estimated Fare vs. Trip Length



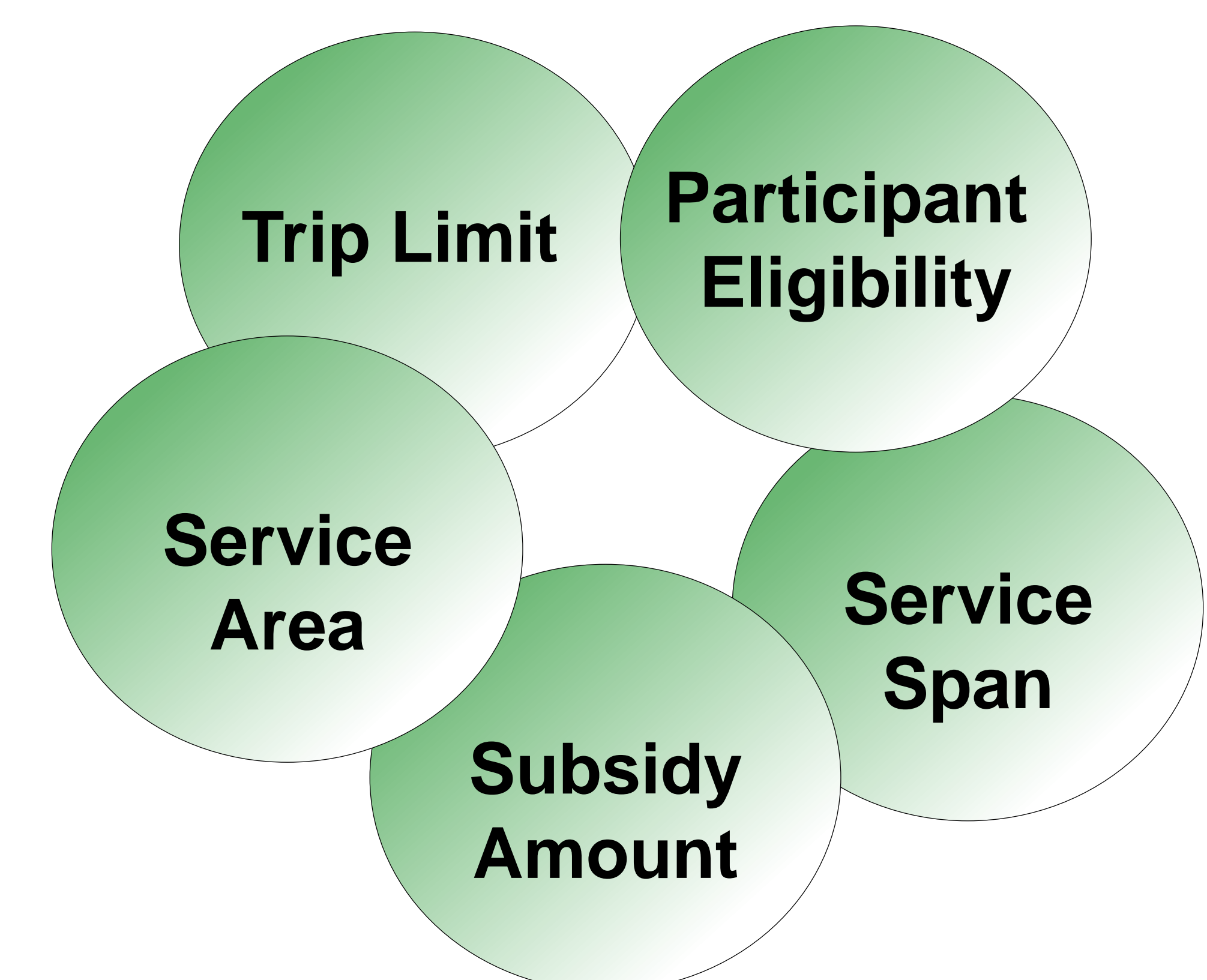
Source: Traffic Data from Alamo Area Metropolitan Planning Organization (2014); fare information from <http://uberestimate.com> (surge-pricing not included)

Conclusions

Key Takeaways

- Continue focus on building out high-capacity transit systems.
- Foster complimentary relationship by limiting trip ends to high-capacity transit facilities.
- Target TNC subsidy programs in low-density areas with dispersed trip patterns.
- Continue to incentivize higher occupancy shared vehicles (LyftLine, UberPool).
- Paratransit programs benefit most from ridesharing subsidies.
- Diversify partnerships to include taxi companies and ensure that users can book a ride through a telephone dispatch service.
- Develop contractual agreements to mitigate risk of potential future fare increases.

Operational Considerations



Project Context

Transportation network companies (TNCs), such as Lyft and Uber, use on-line mobile applications to schedule a transportation service for payment, with drivers using their personal vehicles. TNCs currently operate in over 300 U.S. cities, partnering with more than a dozen transit agencies. Yet, the relationship between these two entities remains unclear. **Can TNCs serve as an effective first-last mile solution or do they substitute transit trips?** As TNCs play an increasingly large role in urban transportation systems, **how can we ensure a complimentary relationship that maximizes safety, mobility, and affordability for all users?**

Pinellas Suncoast Transit Authority

Partners: Uber, United Taxi, Lyft, Care Ride



Massachusetts Bay Transit Authority

Partners: Uber, Lyft



Kansas City Area Transit Authority

Partners: Bridj

