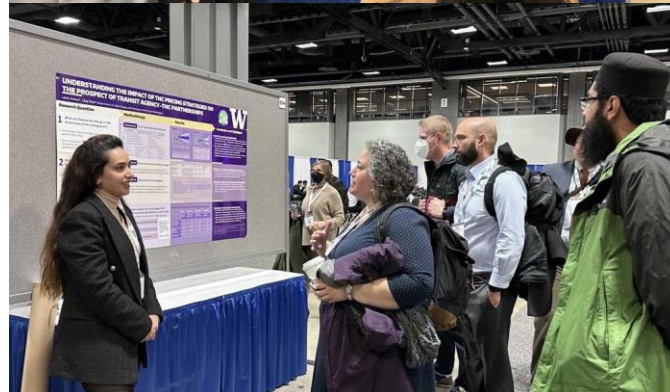
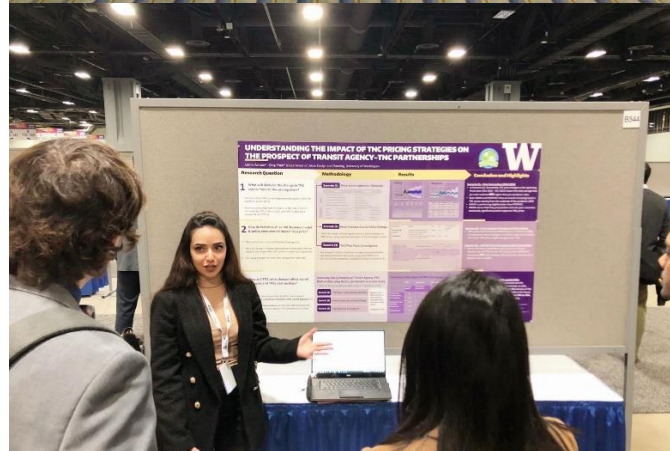
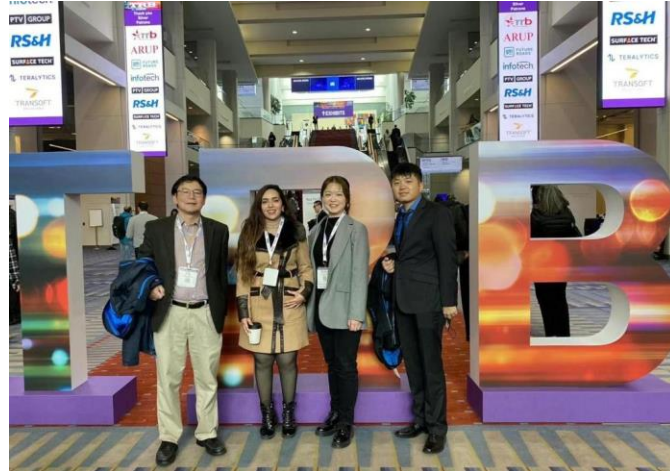


UTC Project Information	
Project Title	UNDERSTANDING THE IMPACT OF TNC PRICING STRATEGIES ON THE PROSPECT OF TRANSIT AGENCY-TNC PARTNERSHIPS
University	University of Washington
Principal Investigator	Qing Shen
PI Contact Information	qs@uw.edu
Funding Source(s) and Amounts Provided (by each agency or organization)	University of Washington PacTrans \$40,000 University of Washington (PI regular salary match) \$35,754 University of Washington College of Built Environments \$5,000 King County Metro \$5,000
Total Project Cost	\$85,754
Agency ID or Contract Number	69A3551747110
Start and End Dates	January 1, 2022-December 31, 2022
Brief Description of Research Project	<p>This project explores future transportation network companies (TNC) price changes and assesses the impact of price change on the prospect of transit agency-TNC partnerships. For this purpose, we examine three TNC price scenarios, as follows: (1) price trend extension using forecasting models, (2) price increase in response to local policy changes, and (3) TNC/taxi price convergence due to increased competition. We use the planned same-day-service (SDS) paratransit pilot project in the Seattle region as a case. For the first scenario, we employ two time-series models, namely ARIMA and PROPHET, to forecast price changes within the next three years (Oct 2022- Oct 2025) using publicly available Chicago TNC trip data. The results show that TNC's daily average price would reach up to \$3.23 per mile, increasing by 40% increase from 2019 average rates. For the second scenario, we track significant policies that directly impacted TNC prices in Seattle and incorporate reported price increases. The resulting estimations indicate that TNC prices would increase by an extra 25% in response to changes in minimum wage law. For the third scenario, we use publicly available taxi trip data of the city of Chicago and forecast future taxi prices by estimating time-series models comparable to those for TNC prices. The analysis suggests that due to increased competition, TNC and taxi prices are converging and that the average TNC fare per mile could add another 50% to the forecasted price if TNC and taxi prices become similar in the upcoming three years. These price increases will negatively and significantly affect transit agency-TNC partnerships in providing paratransit services.</p>

Describe Implementation of Research Outcomes (or why not implemented)

Place Any Photos Here

The research findings were presented at the Department of Urban Design and Planning PhD seminar in Nov 2022 and the annual TRB conference in January 2023. Many professionals and planners from transit agencies, TNCs and other institutions showed interest in our findings that were informative for their plans and projects. A journal paper draft has also been generated and it is currently under review.



<p>Impacts/Benefits of Implementation (actual, or anticipated)</p>	<p>The implementation of this research could have significant impacts on the planning and decision-making processes of transit agencies and policymakers. The findings highlight the potential challenges and risks associated with partnerships between public transit agencies and private mobility service providers, such as TNCs, particularly in terms of cost-effectiveness and price volatility.</p> <p>By providing insights into three possible scenarios of TNC price changes and their likely impact on the SDS paratransit pilot project in Seattle, the research offers valuable information for transit agencies and policymakers to make informed decisions regarding the viability and sustainability of such partnerships.</p> <p>Furthermore, the research also highlights the importance of considering various factors, such as market competition and policy changes, that could affect TNC prices and potentially disrupt existing partnerships. This underscores the need for ongoing monitoring and evaluation of TNC pricing trends and policy changes to inform decision-making and ensure the cost-effectiveness of transit agency-TNC partnerships.</p> <p>The implementation of this research could contribute to more informed and evidence-based planning and decision-making processes in the transportation sector, particularly in terms of partnerships between public transit agencies and private mobility service providers.</p>
<p>Web Links</p> <ul style="list-style-type: none"> • Reports • Project Website 	