UTC Project Information	
Project Title	How does charging network design affect electric vehicle adoption?
University	University of Washington
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Funding Source(s) and Amounts Provided (by each agency or organization)	University of Washington PacTrans $40,000
Total Project Cost	$40,000
Agency ID or Contract Number	69A3551747110
Start and End Dates	August 16, 2017 – August 15, 2019
Brief Description of Research Project	Washington and Oregon are leaders in the early adoption of electric vehicles (EVs), and both states have ambitious goals for continued growth of EVs. Washington intends to have 50,000 plug-in vehicles on the roads by 2020, while Oregon aims "to have tens of thousands of ZEVs [zero-emission vehicles] on the road by 2025," and to have all new passenger vehicles sold be ZEVs by 2050. The goal of this project is to enable investments in electric vehicle (EV) charging infrastructure that most effectively increase consumer demand for EVs. We will use a data-driven approach to understand how charging infrastructure system attributes (station locations, density, type, etc.) affect demand for EVs across regions with diverse mobility needs. This knowledge will help state and local officials to ensure that the benefits of EVs, including their lower per-mile costs and lighter environmental impacts, are available to all residents in the Northwest.

Describe Implementation of Research Outcomes (or why not implemented) Place Any Photos Here	Results of this work were presented at the TRB's 2020 Annual Meeting, and the paper is under second-round review for *Transportation Research Record*. The team is not aware of any direct application of the outcomes so far.
Impacts/Benefits of Implementation (actual, or anticipated)	This work has quantified how car buyers' willingness to consider an EV depends on the characteristics of the vehicle and charging system, including (1) access to charging stations at home and work, (2) density of fast-charging stations around town and along highways, (3) recharging time, and (4) price. This knowledge can help system designers to maximize EV adoption by optimally balancing investments. For example, is public money better spent on subsidizing EV purchases, building neighborhood charging clusters, or developing ultra-fast charging along highway corridors?
Web Links • Reports • Project Website	https://sites.uw.edu/stlab/files/2020/07/EV-infrastructure-and-vehicle-choice-final-report.pdf