

UTC Project Information	
Project Title	Understand usage patterns of e-scooter sharing and policy implications
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Funding Source(s) and Amounts Provided (by each agency or organization)	USDOT: \$90,000 USF: \$45,000
Total Project Cost	\$135,000
Agency ID or Contract Number	Sponsor Source: Federal Government CFDA #: 20.701 Agreement ID: 69A3551747119
Start and End Dates	<ul style="list-style-type: none"> ▪ Start date: 4/1/2020 ▪ End date: 3/31/2021
Brief Description of Research Project	<p>Shared e-scooter is a fairly new transportation mode that emerged in late 2017. Since then, it has gained popularity around the world; however, it also has spiraled into disarray in many cities due to the lack of e-scooter regulations and improper parking and riding behaviors. Limited understanding of shared e-scooters restrains policymakers from developing more effective regulations and promoting this sustainable transportation mode. This study takes a step towards understanding e-scooter user behaviors by investigating factors that influence e-scooter sharing usage and auto mode substitution. Survey data were collected from shared e-scooter users, and random parameter models were applied to explore the factors influencing e-scooter sharing usage and mode substitution. Factors considered in models include sociodemographic information, user behaviors, trip purposes, and health indicators. Model results identify several factors that significantly influence shared e-scooter usage, factors include user gender, helmet use, exposure to shared e-scooters, ownership of an e-scooter, where they ride, opinions on speed limits, and trip purposes. The findings for auto substitution suggest that shared e-scooters are potentially competing with TNC/taxi, lower costs and social/entertainment trip purposes are the contribution factors. We also find that user household with multiple vehicles contributes to private vehicle substitution. Research outcomes suggest shared e-scooters could play a significant role in urban transportation</p>

	sustainability. The insights toward better practices of e-scooter regulations and planning are discussed at the end of paper to help cities improve the performance of shared e-scooter programs and make it a more sustainable transportation mode.
Describe Implementation of Research Outcomes (or why not implemented) Place Any Photos Here	The findings of the factors influencing shared e-scooter usage were used by the City of Tampa in preparing the call for proposal for shared micromobility program started in March 2021, e.g., the CRP requires education efforts from proposer on improving the usage of helmet usage while riding shared e-scooters.
Impacts/Benefits of Implementation (actual, not anticipated)	The expected impacts could include the reduction of e-scooter related crashes in the new shared micromobility program at the City of Tampa. However, the data is not available yet.
Web Links • Reports • Project website	http://ctech.cee.cornell.edu/final-project-reports/