



UTC Project Information – Center for Transportation, Environment, and Community Health	
<i>Project Title</i>	Improving Immersive, highly realistic in-lab, cycling experiences for analyzing active travel
<i>University</i>	Cornell University
<i>Principal Investigator</i>	Ricardo Daziano
<i>PI Contact Information</i>	ra477@cornell.edu /607-255-2018
<i>Funding Sources and Amount Provided (by each agency or organization)</i>	USDOT: \$69,579 Cornell: \$34,508
<i>Total Project Cost</i>	\$104,087
<i>Agency ID or Contract Number</i>	Sponsor Source: Federal Government CFDA #: 20.701 Agreement ID: 69A3551747119
<i>Start and End Dates</i>	07/01/2020 – 09/30/2021
<i>Brief Description of Research Project</i>	<p>In recent years, the continuous growth of private cars, the tight supply of land resources and, the continuous poor air conditions have led policy makers to advocate for sustainable public transportation. Bike sharing systems have been introduced in many cities and developed rapidly worldwide, due to its advantages in reducing environmental pollution and alleviating traffic congestion. It is recognized as a strategic tool to integrate public transportation and promote sustainable urban transportation. Cities around the world seek to reshape urban transportation to a greener and healthier way with the help of bike sharing systems. However, with the development of bike sharing systems, many challenges related to their operation have not yet been well solved, including modeling the demand and encouraging users to purchase memberships.</p> <p>This project focuses on modeling the demand of bike sharing systems and exploring the factors that affect users' subscription memberships, in the context of the Citi Bike initiative in New York City. An online survey was designed to collect data of both characteristics and hypothetical decisions of a discrete choice experiment. Discrete choice models are built to give insights into users' choices.</p>

<p><i>Describe Implementation of Research Outcomes (or why not implemented)</i></p> <p><i>Place Any Photos Here</i></p>	<p>This project developed behavioral estimates coming from implementation of virtual scenarios in an online survey that are informative; actual implementation of findings is beyond the scope of this project. Results of models proposed for the discrete choice experiment set a reference for pricing strategies. Since the time included a single ride and extra time fees are not significant when unlimited rides are provided, bike sharing companies could reduce the time included and raise the extra time fees for single rides and do the opposite to passes.</p>
<p><i>Impacts/Benefits of Implementation (actual, not anticipated)</i></p>	<p>Estimation code of the behavioral models are publicly shared, which will be of benefit to analysts of cycling demand.</p>
<p><i>Web Links</i></p> <ul style="list-style-type: none"> • <i>Reports</i> • <i>Project website</i> 	<p>http://ctech.cee.cornell.edu/final-project-reports</p>