STRIDE | Southeastern Transportation Research, Innovation, Development and Education Center

UTC Project Information	
Project Title	OVERCOMING BARRIERS TO FREIGHT & LOGISTICS FIRM COLLABORATION WITH URBAN PLANNING (Project D5)
University	Team: University of North Carolina at Chapel Hill and University of Florida
Principal Investigator	Noreen McDonald, Ph.D., UNC Chapel Hill
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Funding Source(s) and Amounts Provided (by each agency or organization)	STRIDE: $163,993
Total Project Cost	$163,993
Agency ID or Contract Number	69A3551747104
Start and End Dates	May 15, 2021 to August 15, 2022
Brief Description of Research Project	Transportation is a critical mediator in providing people with disabilities (PwDs) with access to health care, services, jobs, goods, community involvement, and societal participation. Yet, the current transportation system has not provided ubiquitous accessible, affordable, available, acceptable, and adaptable (the 5As) transportation opportunities to these particular groups. With the integration of automated shared mobility services into our transportation system—including autonomous shuttles (AS)—our cities and states have a renewed opportunity to provide PwDs with enhanced quality of life—often curtailed due to inadequate transportation. Although the benefits of automated shared mobility services are numerous, the ultimate litmus test for their full integration will be to successfully afford PwDs with equal opportunities to independently use such services. This challenge will need to be examined from a multifaceted systems perspective (state, city, researchers, industry, stakeholders of those who are disabled, and PwDs). Objectives: This study is an extension of STRIDE A3 and D2 projects to examine the perceptions of 50 PwDs before and after being exposed to an autonomous shuttle. Our earlier work will provide comparison data on the perceptions of 104 older adults, as well as 106 younger and middle-aged adults. Such data are used to analyze their safety, trust, and intention to use automated vehicles1 — precursors of acceptance and adoption practices— for the eventual use of such automated services 2. Methodology: We will

	make meaningful comparisons of the acceptance and adoption preferences between abled-bodied persons (N=210) and people with disabilities (N=50) via within and between-group pre-post-test comparisons and qualitative analysis among age cohorts (i.e., older, middle age and younger adults). Results. We will identify barriers or facilitators of accepting and adopting automated shared mobility services – and make recommendations to engineers, city planners, industry, and the disability community pertaining to accessible use of automated shared mobility services.
Describe Implementation of Research Outcomes (or why not implemented) Place Any Photos Here	1. https://www.sciencedirect.com/science/article/pii/S0967070X22001949 2. https://ite.ygsclicbook.com/pubs/itejournal/2022/august-2022/live/index.html#p=27
Impacts/Benefits of Implementation (actual, not anticipated)	Not available yet
Web Links • Reports • Project website	1. https://stride.ce.ufl.edu/stride-project-d5/ 2. https://stride.ce.ufl.edu/wp-content/uploads/sites/153/2022/09/TT-D5-McDonald.pdf