Presentation title: VeoRide E-Scooter Usage within the UMD Transportation System

Authors: Zachary Dorris, Ethan Levy, Claire Mytelka, Bryan Rezende

Research Focus: The importance of e-scooters as a supplemental mode of transportation in the

College Park area

School: University of Maryland, College Park

Abstract

VeoRide Inc. electric scooters have quickly become integrated into the University of Maryland College Park (UMD) transportation system, providing riders with a quick and easy way to access the campus and its surroundings. VeoRide uses the Mobility Data Specification (MDS) project, which consists of several open-source APIs, to provide regulatory agencies and municipalities access to data from these vehicles. These data were analyzed to evaluate the importance of e-scooters as a supplemental mode of transportation in the College Park area. The dataset included the number of and parameters for e-scooter rides taken during October 2019 and October 2020. Outliers were discarded and the data were divided into 8 categories based on the year, start, and stop location of the ride. The distributions of distance, duration, and category of the rides were plotted and mapped, and several trends were identified, including popular starting and ending points, common areas traversed, and repeat ridership. Across both years, about 80% of rides were confined to the UMD campus, and of the remaining 20%, about three quarters were round trips which either started or ended on campus. The data were also used to identify patterns in the locations of off-campus starting points and destinations. In addition, utilization rates indicate that scooter usage has been resilient to the effects of the pandemic. These trends suggest that this method of transportation is growing in popularity, and currently helps to fill the transportation niche of short-distance, widely convenient rides on and around campus. Further research is indicated in the year following the pandemic in order to isolate current trends in scooter popularity from deleterious effects that campus closures have had on their use.