2017 Project Abstract

Project Title: Predicting Congestion: The Challenge of Shifting Travel Behavior on Estimating Trip Generation (Project E)

Principal Investigator: Ruth L. Steiner, Ph.D., University of Florida, Department of Urban & Regional Planning. Email: rsteiner@dcp.ufl.edu

Co-PI: Noreen McDonald, Ph.D., University of North Carolina at Chapel Hill, Department of City & Regional Planning

ABSTRACT: In recent years, transportation professionals have become increasingly aware that transportation planning and engineering practices need to be matched to the context in which they are occurring and for the population they serve. These practices range from the Institute of Transportation Engineers (ITE) Trip Generation Manual and Parking Generation, the Urban Streets Chapter in the 2010 Highway Capacity Manual, complete streets initiative and other related initiatives. Recent research completed in Portland, OR, Baltimore, MD, and several cities in California, suggests that the ITE Trip Generation Manual over-estimates the traffic impact of developments located in urban contexts with traditional neighborhood development (TND). TNDs are characterized by a higher density, a greater mix of land uses, better street connectivity and proximity to regional activity centers, and in locations with better accessibility to transit. This is an important topic to explore in the Southeast for several reasons. First, millennials and empty nesters are moving into urban locations and demanding walkable neighborhoods, ridesharing, and transit services to support their lifestyles. Second, trip generation rates are used to calculate the required parking and amount of money that developers are required to pay to mitigate the impacts of development. If the traffic impact is overestimated, disincentives will be created for redevelopment in TND neighborhoods. Third, the Southeast lags the rest of the country in the supply and demand for transit yet the increase in demand for TNDs is creating challenges for neighborhoods that are designed for transit and walking yet do not have adequate transit services to support these modes. The main objectives of this research will be to understand current practice and the extent that new tools and guidelines around traffic impact, site design, and long-range planning have impacted practice throughout the United States and, in particular, in the Southeastern region. Sub-objectives in the research include: understanding best practices in planning for all modes of travel, understanding practices in state policies and guidance in southeastern states and understanding how the practices are used in a sample of diverse urban communities throughout the southeastern United States. The results of this research can be used to develop professional development programs, technical assistance and additional research projects to begin the process of primary data collection that would be applicable to the Southeastern United States.