As the second-largest university in the United States, UCF has experienced the largest enrollment in its history. A more densely populated campus has in turn caused increased traffic congestion. Despite increased parking permit fees and newly constructed parking garages, traveling and parking on campus is unpredictable. In effort to reduce congestion on campus, a rideshare program was implemented in Summer 2010. Several universities across the nation have successfully used carpooling as a viable alternative mode to manage traffic and parking demand.

This thesis evaluates the UCF rideshare program, Zimride, using stated- and revealed-preference surveys. Preliminary results indicate most students prefer to commute to campus using their own car and without incentives there is no reason to change mode choice, regardless of associated costs—e.g. decal cost, parking time and frustration. Despite 70% of respondents considering themselves environmentally friendly and over 80% are aware of savings in money and productive by using alternative modes, 70% still use their car to commute to campus.

Using Explanatory Factor Analysis (EFA) and Structural Equation Modeling (SEM), the observed variables were organized into three (3) latent variables based on the correlation among them. The SEM results of the revealed-preference survey indicate current travel behavior significantly influences attitudes towards carpooling and demographics have a significant effect on current travel behavior. It was also found that demographics influences attitudes towards carpooling at a non statistically significant level.

Major: Civil Engineering

Educational Career:
Bachelor's of Civil Engineering, BS, 2009, University of Central Florida

Committee in Charge:
Dr. A. Essam Radwan, Chair, Civil, Environmental & Construction
Dr. Mohamed A. Abdel-Aty, Civil, Environmental & Construction
Dr. Rami Harb, Civil, Environmental & Construction

Approved for distribution by Dr. A. Essam Radwan, Committee Chair, on February 23, 2012.

The public is welcome to attend.