

Project Title – Empirically-Based Performance Assessment and Simulation of Pedestrian Behavior at Unsignalized Crossings
University – University of Florida
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Funding Source(s) and Amounts Provided (by each agency or organization)
Total Project Cost – \$630,293
Agency ID or Contract Number – 2012-016S
Start and End Dates – 7/1/12–8/31/14
Brief Description of Research Project – This project addresses the issues of livability and safety by developing new and improved algorithms for describing pedestrian and vehicle interaction at unsignalized crossings and by implementing them in a traffic simulation environment. These algorithms were developed from field data collected at 28 unsignalized and midblock pedestrian crossings in three states. Data collection included customized yielding and gap acceptance studies at locations in North Carolina, Florida, and Alabama, as well as an in-vehicle study with drivers in Gainesville, FL. The produced microscopic models include algorithms for pedestrian gap acceptance and driver yielding behavior, as well as various models describing vehicle dynamics and driver behavior when approaching crosswalks. The research resulted in an improved understanding of pedestrian-vehicle interaction at these crossing locations, which is expected to have a significant impact on engineering.
Describe Implementation of Research Outcomes (or why not implemented) – The produced algorithms were incorporated in a microsimulation tool developed at the University of Florida, and were tested and validated against the field observed data. Several papers summarizing components of the research were presented at the TRB Annual Meeting in Washington, D.C. in January 2015. The final project report is posted on the STRIDE website: <a href="http://www.stride.ce.ufl.edu/uploads/docs/Schroeder_STRIDE_2012-016S_Final_Report.pdf">http://www.stride.ce.ufl.edu/uploads/docs/Schroeder_STRIDE_2012-016S_Final_Report.pdf</a>

Additional technology transfer activities, including presentations, webinars, and publications are ongoing.

Place Any Photos Here



Impact/Benefits of Implementation (actual, not anticipated)

Final Report on STRIDE Website: – <http://www.stride.ce.ufl.edu/schroeder-abstract>

[http://www.stride.ce.ufl.edu/uploads/docs/Schroeder\\_STRIDE\\_2012-016S\\_Final\\_Report.pdf](http://www.stride.ce.ufl.edu/uploads/docs/Schroeder_STRIDE_2012-016S_Final_Report.pdf)

Final Report on TRB/TRID: <https://trid.trb.org/view/2014/M/1326314>