

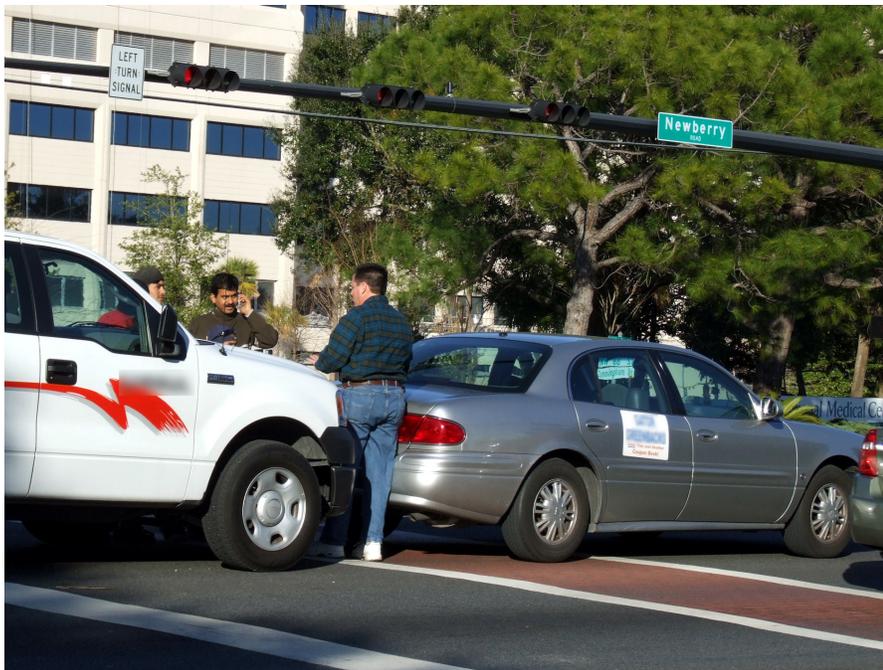


## Florida Department of Transportation Research Identification of Intersections' Crash Profiles/Patterns: Expanding the Scope to Include a Client/Serve Computer Application BC355-10 (9/07)



Nearly 40 percent of all traffic crash accidents occur at or near intersections. Many factors contribute to accidents. However, few studies have focused on the relationships between the physical layout (geometry) of intersections, intersection traffic flow, and the frequency of certain types of crashes. The Center for Advanced Transportation Systems Simulation at the University of Central Florida conducted intersection studies in order to identify frequent crash patterns.

then developed crash profiles for 45 different intersection configurations. They developed tables from the crash profiles that can serve as a crash profile manual useful for identifying intersections with specific problems, such as those with a high incidence of fatal accidents. The researchers also used the data developed in this phase of the study to devise a method for predicting the number of potential crashes at an intersection based its total number of lanes. Finally, the crash profile data can be



used to develop an adaptive database that eventually will include intersection data for all of Florida. The database will minimize the possibility of redundancy and errors in the data, which is used by many FDOT offices.

In Phase II, the researchers created a web application that will allow FDOT engineers to update the developed database and create new crash tables. The web application will allow traffic planners to quickly access and analyze the most recent information. The data will aid in the development of effective

*A simple fender bender obstructing an intersection*

The researchers conducted this project in two phases. In Phase I, they collected geometric, traffic, and accident data for 1,562 intersections that have traffic signals, and

accident countermeasures, which will have the potential to reduce the occurrence of fatalities at intersections, losses in productivity, and property damage.

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