



Extraction of Basic Roadway Information for Non-State Roads in Florida

July 2015

Project Number

BDV29-977-07

Project Manager

Joseph Santos
FDOT Safety Office

Principal Investigator

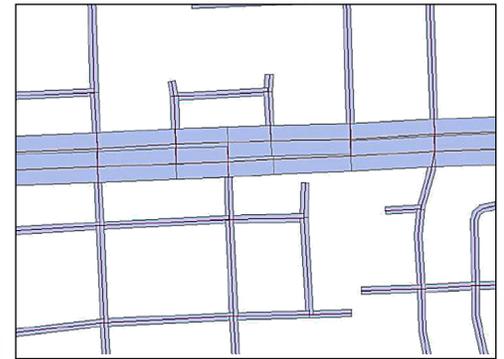
Albert Gan
Florida International University

Current Situation

The Florida Department of Transportation (FDOT) maintains a map of all the roads in Florida, containing over one and a half million road links. For planning purposes, a wide variety of information, such as stop lights, signage, lane number, and speed limit, is associated with each link in this All-Roads map. Data state roads are available from FDOT's Roadway Characteristics Inventory (RCI), but for local roads, these data are not readily available, and the number of local roads makes it impractical to directly acquire the data through field work.

Research Objectives

For every reported crash in Florida, local law enforcement records information for numerous variables related to the circumstances of the crash and including the physical layout of the road segment on which the crash took place, producing a potentially rich source of data. In this project, Florida International University researchers examined the possibility of developing data for local road links on the All-Roads map by analyzing police crash reports.



A section of Florida's All-Roads map. Information developed in this project can be added to the map to aid in planning efforts.

Project Activities

Data sources for the project included the Crash Analysis Reporting (CAR) system maintained by the FDOT Safety Office and the Roadway Table 50 (RDWTBL). CAR was originally created by merging crash data from the Department of Highway Safety and Motor Vehicles and roadway data from FDOT. CAR contains information collected from police crash reports.

Researchers extracted data from crash reports to supply the number of through lanes, posted speed limit, shoulder type, and median. They pursued the data in three steps. First, data were extracted from crash reports for as many road segments as possible. Second, for some segments for which there were no crash records, it was possible to use values from adjacent segments. Third, for the remaining segments, missing data were collected manually using a Web-based data collection application, the Visual Roadway Inventory Collection System (VRICS), that facilitates observing and recording information from satellite images in Google Maps. For each step, data verification procedures were conducted.

The procedures used to extract information from the source databases also revealed useful information, such as the completeness of the databases and differences between them.

Project Benefits

Projects like this increase accurate knowledge of Florida's roadways, which is essential for effective planning and efficient use of resources.

For more information, please see dot.state.fl.us/research-center