



Project Number

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Project Managers

Joel Worrell

Robin Birdsong

Principal Investigators

Sara Hendricks

Martin Catala

University of South Florida

Florida Department of Transportation Research

Multimodal Data Inventory Evaluation to Improve FDOT's Roadway Classification Inventory

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Current Situation

The Florida Shared-Use Nonmotorized (SUN) Trail network is a developing statewide system of paved multi-use trails for bicyclists and pedestrians, physically separated from the road. Completing the network will occur through intergovernmental cooperation and private partnerships. Improving the network will increase the reliability of Florida's transportation system. As the Florida Department of Transportation (FDOT) advances statewide multimodal systems, the Transportation Data & Analytics Office anticipates that new modes, including the SUN Trail network, will soon outpace current FDOT data inventory systems and practices. Transportation performance management depends upon a complete and accurate inventory of existing transportation facilities and assets to produce system performance measures such as quantity, quality, accessibility and utilization that are required for federal and state reporting. FDOT stores the majority of this data in the Roadway Characteristic Inventory (RCI). The SUN Trail feature in RCI provides the location of the network but not an inventory or condition of the assets.



Florida continues to serve as a model in its commitment to developing a statewide trail system.

Research Objectives

University of South Florida researchers investigated acceptable inventory methods based on FDOT data accuracy requirements and available technology to determine a methodology of inventory of SUN Trail assets and to identify an efficient, scalable, and acceptable data inventory management design for hardware and/or software investment.

Project Activities

The researchers investigated existing FDOT transportation data inventory methods for roadway and SUN Trail and how other state, regional, and local agencies inventory interconnected nonmotorized trails. They found no state with a comparable statewide nonmotorized paved multi-use trail system being inventoried as part of a statewide transportation system. They found that most states do not collect such data, and in the few states that do, data are collected through partnerships and maintained by another agency, such as state parks. As the data are collected and used for different purposes, the efforts often encounter challenges, including data format and accuracy. In very few cases were any but the most basic technologies used.

To support performance measurement and management of the life cycle of trail assets, recommendations were made for the collection of SUN Trail data, with clear definitions of the feature characteristics, the data and methods needed, and accuracy required. The researchers prioritized collection of some characteristics. For example, trail location and condition are the most basic information needed, and on-system features – those within FDOT right-of-way – are a higher priority for collection. The researchers also considered the data collection methods in terms of matching the amount and expense of acquiring data to the level of the goal.

Project Benefits

The results of this research can be used as the basis for the inventory of SUN Trail features and characteristics data.

For more information, please see www.fdot.gov/research/.