



# RESEARCH PROJECT CAPSULE [18-1SA]

October 2017

TECHNOLOGY TRANSFER PROGRAM

## Economic Effect of Restricted Crossing U-Turn Intersections in Louisiana

### JUST THE FACTS:

**Start Date:**

July 1, 2017

**Duration:**

18 months

**End Date:**

December 31, 2018

**Funding:**

Safety

**Principal Investigator:**

Helmut Schneider, Ph.D.

ISDS Department

Louisiana State University

**Administrative Contact:**

Tyson Rupnow, Ph.D., P.E.

Associate Director, Research

225-767-9124

**Technical Contact:**

Elisabeta Mitran, Ph.D.

Research and Technical Assistance

Manager

225-767-9129

Louisiana Transportation

Research Center

4101 Gourrier Ave

Baton Rouge, LA 70808

Sponsored jointly by the Louisiana

Department of Transportation and

Development and Louisiana State

University

### POINTS OF INTEREST:

Problem Addressed / Objective of  
Research / Methodology Used  
Implementation Potential

[WWW.LTRC.LSU.EDU](http://WWW.LTRC.LSU.EDU)

### PROBLEM

The Louisiana Department of Transportation and Development (DOTD) has made significant progress in reducing collisions and increasing capacity along its highway corridors. Deployment of access management techniques, such as restricted crossing U-turn (RCUT) intersections, has reduced traffic congestion and injuries/damage associated with left-turn crashes.

The RCUT concept functions by preventing left turns or crossing traffic from minor roads at intersections with higher-speed roadways. However, businesses located near these intersections have expressed concern that the change in direct access to their properties has created a negative economic impact upon them.

There are several RCUT intersections that have been implemented in Louisiana. These intersections are the basis for this investigation.

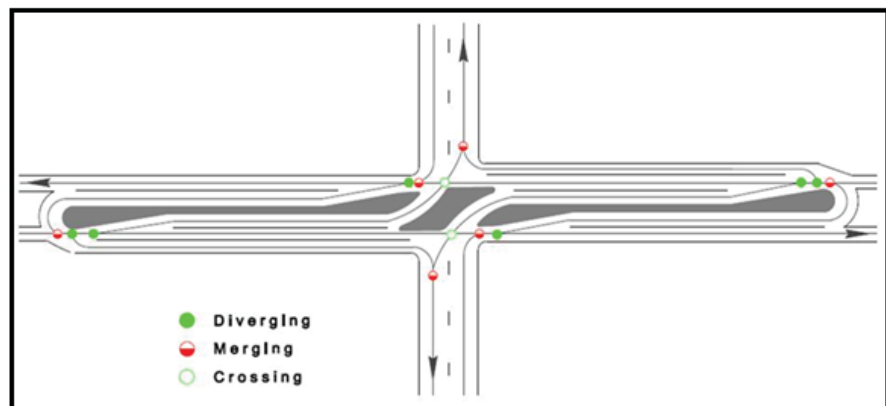


Figure 1  
RCUT intersection - conflict points

### OBJECTIVE

This study will analyze before-and-after sales tax data to assess the economic impact of Louisiana's RCUT intersections on nearby businesses. A secondary goal is to assess the perception of business owners and residents near these intersections.

### METHODOLOGY

A thorough literature review will help identify common economic issues related to access management on divided highways. Findings from prior research will be summarized. The primary focus will be on how other states have dealt with business concerns.

Sales tax data for the businesses near selected RCUT intersections will be analyzed for a seven-year time span, including three years before construction and three years after construction. Also, sales tax data for the districts in which these intersections were constructed will be analyzed to compare and assess any trends and/or cycles.

A survey questionnaire will be developed to assess the perception of business owners and residents near the RCUT intersections. Responses will provide insight regarding perceived impacts on safety, ease of use, and changes in driving behavior related to business access.

## IMPLEMENTATION POTENTIAL

This research project will help clarify the impact of Louisiana's RCUT intersections on traffic safety and the economic priorities of nearby businesses.

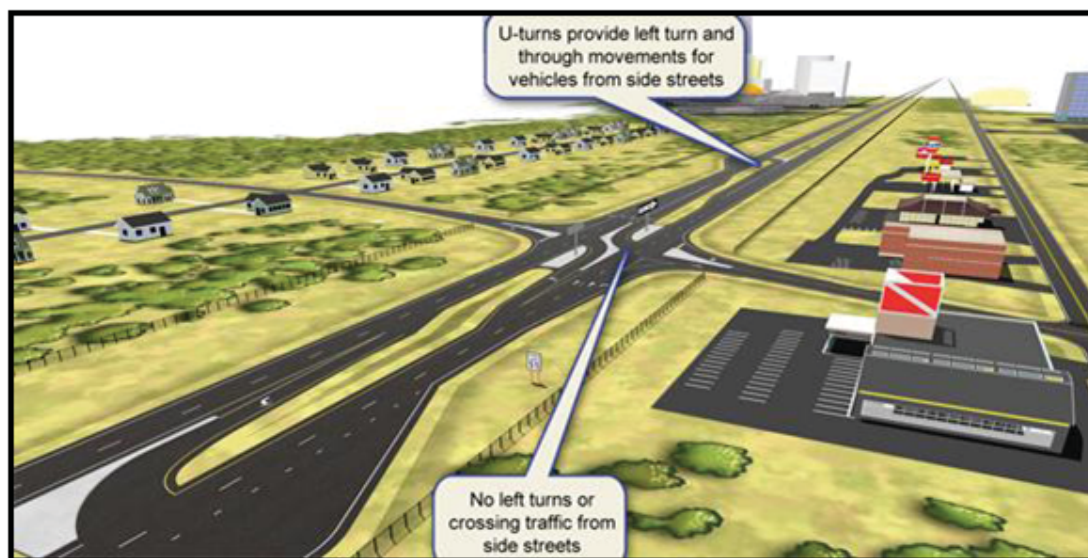


Figure 2  
RCUT - superstreets