



RESEARCH PROJECT CAPSULE [22-4SS]

August 2022

TECHNOLOGY TRANSFER PROGRAM

Economic Impact of Access Management Treatments

JUST THE FACTS:

Start Date:

July 1, 2022

Duration:

24 months

End Date:

June 30, 2024

Funding:

SPR: TT-Fed/TT-Reg – 5

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POINTS OF INTEREST:

Problem Addressed / Objective of
Research / Methodology Used /
Implementation Potential

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PROBLEM

Access management strategies are used by transportation agencies to improve efficiency and safety on roadways. In general, access management treatments concentrate on location, spacing, entrances design, intersections, traffic signals, and median openings to minimize the conflict points. Access management is implemented aiming for benefits to reduce congestion, enhance traffic safety, and spur economic development by promoting efficient movement of goods and services. However, state DOTs often face serious challenges and opposition to access management projects, which require the coordination of state/local resources and policy as well as the cooperation and support from property owners and developers to be successful.

This research will elucidate the impact of access management projects on economic activities of local businesses, which DOTD and other Strategic Highway Safety Plan (SHSP) stakeholders can use for more effective deployment of access management treatments in Louisiana to improve traffic flow and safety. The study will also provide support for improved communication at DOTD public meetings about implications of access management projects. Furthermore, the research results will provide the affected parties, general public, and other highway safety stakeholders with a deeper and more comprehensive understanding of economic impact of access management projects on the economy in the surrounding environment.

OBJECTIVE

The overall goal of this research is to assess the economic impact of access management techniques on businesses in the corridor where such projects have been implemented in Louisiana. A secondary goal is to assess the perception of businesses near completed projects. Specifically, the objectives are to (1) identify current state of knowledge about access management; (2) measure the impact on sales of businesses near access management projects; (3) assess perception of business owners near access management projects; and (4) assess perception of patrons and residents near access management projects.

METHODOLOGY

To achieve the objectives of this study, the following tasks will be completed. A literature review that includes resources from FHWA, transportation research board databases, and a search of all databases available through the University Library will be conducted.

The project team will work with DOTD and a Project Review Committee to determine specific sites to be included in the study. Next the research team will identify and collect a range of data including site characteristics and sales tax information.

The team will design surveys to assess perceptions of business owners and residents around these projects (with one survey focused on each group). These surveys will

provide some insight into how residents and businesses affected by these projects perceive impacts on safety and ease of use, as well as any perceived changes in driving behavior to the businesses that had taken place. Following the survey design, the team will begin conducting a business survey via phone interviews with follow-up and response modes available via e-mail or online submission for those businesses whose best point of contact is not available via phone. An in-person follow-up will also be included to improve response rates. The resident survey will be conducted on site using an intercept survey approach with patrons at area businesses interviewed in person by the survey team. The survey data will then be analyzed using statistical software such as Stata or R with tables and narrative summaries incorporated into the final project report.

The impact of sales of businesses near access management projects will be measured by analyzing the sales tax data before and after implementation of a sample of projects. Lastly, a final report summarizing activities and findings from all tasks and a technical summary will be prepared.

IMPLEMENTATION POTENTIAL

This project will help the DOTs in the U.S. in general and specifically DOTD and those who design access management projects, allowing them to take into consideration potential economic effects in a cost-benefit analysis.