

# Access To Louisiana Freight Terminals: An Intermodal Transportation Planning Framework For Needs Assessment and Funding

Starting date: 7/01/99  
Duration: 18 months  
Completion date: 12/31/00  
Funding: State

Principal Investigator:  
Dr. Anatoly Hochstein  
Louisiana State University

LTRC Contacts:  
Administrative:  
Harold "Skip" Paul  
Assoc. Director, Research  
(225)767-9102

Technical:  
Art Rogers, P.E.  
Research Manager  
(225)767-9166

## Problem

The North American Free Trade Agreement (NAFTA) offers significant potential for Louisiana with its port capacities to accommodate expanded water transport trades. Congestion at the US-Mexico land borders will most likely not be resolved in the near future. NAFTA will induce a restructuring of the region's trade dynamics which could lead to meaningful expansion of current levels of Louisiana-Mexico trade. In order to capitalize on NAFTA-relat-

ed opportunities, Louisiana should develop strategies required for the state's ports to play a role in capturing the impending growth of water-based trade and diverting land-based trade to water transport. Good port access from the land side is an important part in obtaining this trade.

## Objectives

The objective of this project is to develop a planning framework to assess existing and future infrastruc-



LTRC



Louisiana Transportation  
Research Center

Sponsored jointly by the  
Louisiana Department of  
Transportation and Development  
and  
Louisiana State University

4101 Gourrier Avenue  
Baton Rouge, LA 70808-4443



*A shift from land-based trade to water transport will yield major benefits, reducing energy consumption and air pollution, and stimulate economic growth.*

ture needs for intermodal access roads and to examine innovative financing methods for the funding of construction.

## Description

More than half-a-billion tons of intermodal freight that move through the statewide transportation network each year is the mainstay of Louisiana's economy. Even incremental productivity gains in this vast freight sector will yield major benefits, reducing energy consumption, air pollution, and system efficiencies, and stimulate economic growth. Improved access and seamless cargo transfer at freight terminals are considered key to trigger off network efficiency gains.

The focus of this research is on two major problems encountered by public sector agencies in their transition to transportation planning under an intermodal planning framework. First, the lack of easily applicable cross-modal evaluation methodologies has hampered infrastructure investment planning under an intermodal framework. Second, institutional rigidities and resistance to change imposed by modal specific management systems within public sector transportation agencies are major impediments to smooth transition. The general objective of this

research is to develop a program for funding intermodal transportation projects through cost sharing mechanisms between highway, rural roads, and port priority programs. The research plan proposes to overcome the above-mentioned impediments by developing a social benefit-cost methodology to evaluate intermodal project investments across modes and to examine alternative institutional frameworks for funding and coordination of such programs at DOTD.

The benefit-cost methodology to be developed will be modeled using socioeconomic factors specific to Louisiana and under a policy framework where decision-makers can provide weights to variables. As part of this task, an industrial restructuring analysis will be undertaken to quantify the industry-related productivity benefits associated with major changes in the transportation system. Results of this analysis will help policymakers to identify regional projects with the highest benefit. The final product of this task will be a cross modal project evaluation methodology which will be able to quantify benefits and costs of intermodal projects in an objective manner.

The second task is to develop an institutional framework for coordinated decision making in intermodal planning, funding, and

implementation. This will be accomplished through management analysis of existing procedures at DOTD and input from a coordinating committee of senior officials in various funding programs.

## Implementation Potential

Implementation of the program recommended in this research is the first step in intermodal transportation planning which may gradually gather momentum at the DOTD. The project will provide recommendations for implementing a funding program under an intermodal planning framework. The major components consist of the cross-modal evaluation methodology and an institutional framework to implement the program.

The Intermodal Surface Transportation Act (ISTEA) legislation advocates transportation planning under an intermodal planning framework at the state level. As state transportation departments are currently searching and experimenting with various methodologies in this regard, this research is expected to create wide interest in the public sector.