



# TECHSUMMARY *November 2020*

State Project No. DOTLT1000Z90 / LTRC Project No. 19-4SS

## The Impact of the Louisiana Rail Infrastructure: A System Analysis and Plan

### INTRODUCTION

Louisiana's rail system plays an essential role in linking Louisiana shippers with markets throughout North America. Chief among high-volume rail shippers in the state is the petrochemical industry. Historically, New Orleans has been a major gateway for the interchange of rail traffic between eastern and western railroads. In recent times, railroads have brought increasing volumes of oil tapped in the upper Midwest to Mississippi River ports for export. Amtrak's intercity passenger services in the state are limited, but Amtrak provides essential transportation services for Louisianans.

#### **Freight Rail System**

The rail system in Louisiana comprises 2,746 route miles that are owned by 19 freight railroads. Six of these railroads are categorized as Class I railroads (large railroads) and own a total 2,350 route miles or 86% of the total rail mileage in the state. Short line and terminal railroads own and operate the remaining route miles in the state. In 2017, these freight railroads carried over 144 million tons of freight that originated or terminated in Louisiana or passed through the state. Chemicals and Allied Products comprised 20% of the total carloads, followed closely by hazardous materials, coal, and food or kindred products.

#### **Passenger Rail Service**

The state is served by three long-distance Amtrak trains, with New Orleans serving as a hub. There currently is no commuter or intercity corridor service provided in the state, either by Amtrak or by other operators. There is one small tourist railroad operated by the Southern Forest Heritage Museum. Amtrak operates entirely over the trackage of Class I freight railroads, except for a small portion over the New Orleans Public Belt Railroad and trackage at the New Orleans Union Passenger Terminal. While service was expanded to Mobile and Orlando in the 1980s and 1990s, Amtrak's frequency of train service through Louisiana is now what it was in 1971. While the limited availability of passenger cars has constrained traffic growth, revenue management, targeted marketing, and high gas prices have driven ridership and ticket revenue to record levels.

The three long-distance trains are: The City of New Orleans, operating between Chicago and New Orleans; the Sunset Limited, operating between Los Angeles and New Orleans; and the Crescent, operating between New York and New Orleans. A total of 212,767 passengers boarded and alighted at the seven Louisiana Amtrak stations in 2018. Of these, 181,544 boardings and alightings were at the New Orleans Union Passenger Terminal. Boarding and alightings at Amtrak stations in Louisiana are projected to reach 323,090 by 2038, a 52.5% increase over the 20-year period. The growth equates to a 2.1% annual increase for the period.

#### **Rail Impacts**

Rail service is essential to Louisiana's economy. The basic provision of rail service generates 3,528 direct jobs (8,862 total jobs including multiplier effects). The total rail activities yield a total of \$729 million paid in income.

In addition to the direct employment benefits, the availability of rail transport provides cost and logistical advantages to Louisiana companies that enable the state to compete effectively in the global marketplace. The presence of rail freight is especially important in rural areas where manufacturing, agriculture, and local industries rely on freight shipping.

Railroads are also up to four times more fuel efficient than trucks on the basis of ton-miles transported, and, as greenhouse gas emissions are directly related to fuel consumption, every ton-mile of freight moved by rail instead of truck reduces greenhouse gases by up to 75%. The diversion of freight traffic to rail also increases the safety of the state's highway system. Amtrak intercity passenger rail service connects major urban areas, which is important given the limited air service in the state. Passenger train travelers generate income not only for rail operations, but also for restaurants, hotels, and other visitor service establishments. Furthermore, passenger stations have the potential to increase economic development around the station areas.

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## OBJECTIVE

The future Louisiana rail system will provide safe, reliable, and reasonably priced mobility for people and goods. In addition, it will contribute to a more balanced transportation system, economic growth, a better environment, and energy conservation. The state's rail infrastructure and levels of service will expand to provide increased transportation efficiency, cost effectiveness, accessibility, capacity, and intermodal connectivity to meet market demands through a freight and passenger rail investment plan, which includes public-private partnerships. To further this vision, the state will take a leadership role in planning rail service improvements.

Rail service objectives aligned with the rail vision were developed based on the rail-related benefits, issues, and obstacles that had been identified. These objectives are as follows:

### *Freight Rail Objectives*

- Improve the interchange of Class I rail traffic in New Orleans. Implement New Orleans Gateway (a program of projects).
- Increase the number of miles of track capable of 286,000-lb. car weights on the state's short line railroads.
- Minimize accidents, injuries, and fatalities at highway-rail grade crossings in Louisiana through crossing closures, safety improvements, and grade separations.
- Encourage economic development through investments in the rail system, e.g., improved access to marine and river ports, new intermodal facilities, and new industrial leads and spurs.
- Assist in funding rail improvements through Louisiana ACT No. 22, which established a designated Rail Program within DOTD. However, there is no dedicated funding source associated with this authorization.
- Leverage public-private partnerships for funding rail improvements.

### *Passenger Rail Objectives*

- Enhance existing services; maintain and improve existing stations.
- Engage the freight railroads in new passenger rail planning initiatives.
- Continue outreach to stakeholders.
- Develop funding strategies for passenger rail initiatives.
- Encourage multimodal integration.
- Continue with Amtrak station upgrades.

## SCOPE

Louisiana has undertaken a comprehensive study of its passenger and freight rail network and has identified key issues and opportunities. The State Rail Plan serves to document this information and set a direction for rail planning and project development into the future, while also meeting the federal requirements to qualify the state for any future federal rail funding.

## METHODOLOGY

This research included analytical methods that integrate a set of performance measures/indicators. The key performance assessment methods used are "best practice" and "benchmarking." A frontier or best practice deals with the technical efficiency. A best practice frontier can be estimated by evaluating output levels to input levels. This method provides a general assessment or overall picture of performances through a selected inputs/outputs ratio. Benchmarking, on the other hand, can analyze whether the corridors are currently improving their performances with their

newly implemented services. It is "a systematic management process" that helps to search best practices and to monitor them.

## CONCLUSIONS

In recent years, DOTD has focused its freight rail-related efforts in three main areas. These are:

- Facilitating the implementation of the New Orleans Rail Gateway Program
- Assisting short line railroads to acquire funding for their improvements for infrastructure upgrades for heavier carloadings, crossing improvements, crossing closures, and rail line relocations
- Enhancing safety at crossings by implementing safety improvements and grade separations

The state's proposed short-range and long-range freight projects reflect a continued focus in these areas. Thereby, DOTD continues to support the establishment of a dedicated funding source for the Rail Program, with the primary mission of helping the state's railroads, and particularly short lines, secure federal funding for improvements, such as ensuring 286,000-lb. carload capacity on lines where shippers demand it. DOTD will also continue to make major investments in crossing safety. Additionally, DOTD supports the establishment of a state-funded Rail Infrastructure Improvement Program. This program could have a potential budget range of \$10 million to \$25 million per year, and, thus, be able to provide the state's required matching funds for federal funds.

For the New Orleans and Gulf Coast Railway Relocation Project to succeed, CRISI funds, Highway Safety Improvement funds, INFRA funds, and/or Rail Line Relocation and Improvement Capital grants will need to be obtained. With the establishment of a designated funding source for the Rail Program, DOTD can expand its efforts to assist in funding rail improvements on private railroads that serve Louisiana shippers and perhaps one day might host new passenger rail services in the state.

## RECOMMENDATIONS

Based on the input received from stakeholders and the public during the preparation of the Louisiana State Rail Plan, DOTD will work toward the following initiatives:

- Carry out Louisiana ACT No. 22, which established a designated Rail Program within DOTD that is empowered to assist in funding rail improvements. However, there is no dedicated funding source associated with this authorization. DOTD will work to establish a funding source.
- Support the establishment of a state-funded Rail Infrastructure Improvement Program for helping to realize these improvements and maintaining lines in a state of good repair. This program could have a potential budget in a range of \$10 million to \$25 million per year.
- Continue to support the New Orleans Rail Gateway project and port-access improvements such as the Gulf Coast Rail Relocation project.
- Continue to promote and enhance rail safety at crossings.
- Continue to work with neighboring states on rail initiatives that benefit the region; continue to participate in the Southern Rail Commission on both passenger and freight initiatives.
- Support the improvement of existing Amtrak services and Amtrak stations.
- Support the development of new intercity rail initiatives that enhance mobility options for Louisianans.
- Increase the frequency of passenger rail service between New Orleans and Houston.