

Rails to Resilience: Evaluating New Orleans and Baton Rouge Rail Terminals and Transit Links

Evaluating multimodal linkages to and opportunities for proposed stations for future passenger rail service between Baton Rouge and New Orleans, Louisiana

This study included a comprehensive analysis of recent planning processes and documents and distribution of a statewide survey aimed at understanding ridership potential (including non-work trips) and the needs of likely users, the results of which were modeled to illuminate key considerations for service design and station area planning. This study finds a strong foundation for, and support of, the proposed rail service, but distinct deficiencies in the current multimodal transportation environment connecting to and from proposed stations. In addition, previous analyses include potentially faulty assumptions about likely rail passenger trip purposes, which have critical implications for service design. The findings of this study reflect the priorities of likely rail passengers and advance efforts to plan for successful passenger rail service operation in Southeast Louisiana.

Background

A broad coalition of stakeholders, including local and regional governmental entities, economic development organizations, and advocates support the development of this connection, and several feasibility studies and station area plans have been developed in anticipation of possible future funding for implementation.

However, the effectiveness of the proposed project as a means to expand employment opportunity for Louisiana residents and promote economic growth within rail corridor communities, to mitigate traffic congestion and support corresponding environmental benefits, and to provide efficient access to goods, services, and destinations is contingent upon the convenient provision of multimodal transportation facilities and services connecting the proposed intercity rail service to the surrounding communities

Project Summary

This study supports an improved understanding of the dynamics of likely ridership through the following key activities:

- A comprehensive evaluation of existing transportation networks connecting proposed rail terminal sites
- Distribution of a survey aimed at understanding the potential for passenger rail ridership and the needs of likely users
- Identification of transit priorities and opportunities to maximize connectivity of intercity rail to employment destinations
- Development of methods to model rider preferences and exploratory methods of estimating projected and/or potential ridership, including non-work trips evaluated.

Status Update

The survey received over 4,600 completed responses and found strong support regionwide for passenger rail as well considerable interest in multimodal travel locally. However, corridor residents are not generally currently interested in using active modes of transport or public transportation to access the train (Figure 1).

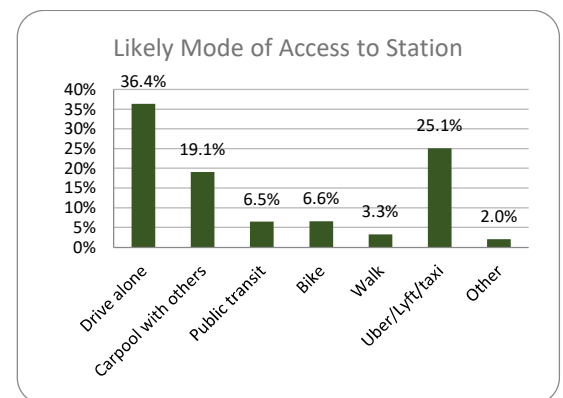
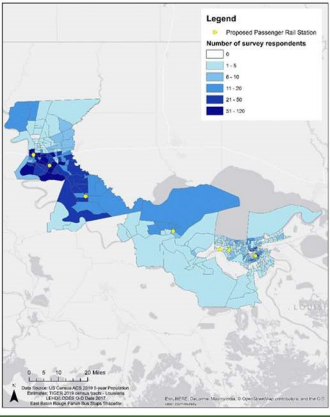


Figure 1. Survey respondent likely mode of access to rail station

Recently completed station area plans and local transit/streets enhancement project have created a robust blueprint for future improvements which are needed to improve public perception of the viability of alternative transportation options.

Survey Respondent Distribution within Corridor Parishes



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Interparish Travel Purpose

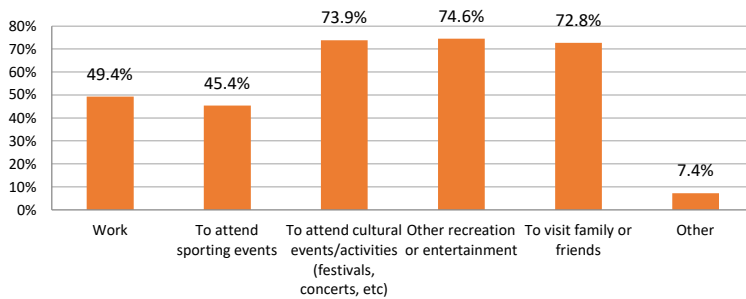


Figure 2. Survey respondent purpose of travel.

Although interest exists among commuters who work across parish lines to use the train for work trips, most potential riders would not expect to utilize passenger rail for work trips; instead, it is viewed as a vital means of accessing the region's many cultural, recreational, sporting, and entertainment events, as well as connecting families (Figure 2).

Modeling of survey responses, including a Discrete Choice Experiment (DCE) aimed at analyzing rider sensitivities and preferences as well as extrapolation of reported interparish trip frequencies data showed consistent preferences across neighborhoods, parishes, and demographic groups, and indicate that potential demand, if scheduled appropriately and not constrained by supply of service, could exceed previously estimated ridership projections.

Impacts

This project seeks to inform future transit, passenger rail, and multimodal planning processes and advance the implementation of projects through outreach and technology transfer to local, regional, and state-level stakeholders and promote efficient, effective transportation investments. In order for the proposed rail service to be successful and meet revenue targets, it must be designed to meet the needs of those most likely to ride it. This study provides new insight into the preferences and perceptions of the route's target audience, in order to inform implementation.

The survey results reveal insights into the current and anticipated travel behaviors, modal preferences, cost and trip duration sensitivities, and origins and destinations of a geographically diverse range of likely passenger rail riders, as well as preliminary hints at the long-term impacts of COVID-19 on travel and employment.

Respondents expressed a desire to have transportation options for trips related to sports, entertainment, special events, social activities, family visits, airport trips, and recreation. This suggests an important opportunity to meet rider needs and optimize revenue: rather than focusing on a commute-oriented service schedule, with one AM and one PM trip per day, it may be more appropriate for initial/pilot service design to focus on weekend/special event travelers and plan schedules accordingly. Furthermore, focusing attention on non-work trips would allow riders to experience the service under lower-stakes conditions, potentially assuaging concerns about travel time, safety, or reliability that were expressed.

Finally, the analytic methods (embedded DCE survey; multi-level modeling) employed represent a replicable set of tools which may be useful in future research and transportation planning processes, including but not limited to other passenger rail initiatives.

Tran-SET

Tran-SET is Region 6's University Transportation Center. It is a collaborative partnership between 11 institutions (see below) across 5 states (AR, LA, NM, OK, and TX). Tran-SET is led by Louisiana State University. It was established in late November 2016 "to address the accelerated deterioration of transportation infrastructure through the development, evaluation, and implementation of cutting-edge technologies, novel materials, and innovative construction management processes".

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