

0-6891: Using Public Transportation to Facilitate Last Mile Package Delivery

Background

Commerce and quality of life in Texas depend on the daily delivery of millions of tons of goods shipped efficiently and affordably over Texas' multimodal freight transportation system. Continued growth of business to consumer e-commerce has increased demand for package shipping services, and rural areas face a particular challenge in finding efficient last-mile delivery of goods (from freight drop to final destination). The network of rural transit agencies and intercity bus carriers may effectively bridge the last-mile gap in package shipping from the freight drop point to the final destination by providing last-mile package delivery services in exchange for a service fee.

This research project investigates current gaps in existing package delivery service that the network of intercity bus and rural transit districts in Texas could fill by coordinating package delivery service with private package delivery providers.

What the Researchers Did

Researchers established a baseline understanding of package delivery services in the United States and provided a better understanding of the opportunity for rural transit agencies to participate in freight delivery as a last-mile solution through a scan of the historic and current state of the practice. Information gathered from stakeholders through a fact-finding questionnaire revealed the motivating factors, keys to successful package delivery programs, and the perceived benefits and challenges associated with such programs. The research team facilitated a series of stakeholder workshops to capture rural transit agency and private intercity bus carrier perspectives on using public transit to facilitate last-mile package delivery in rural areas.

To determine the viability of the best practices and potential policies developed from the information gathered from the state-of-thepractice scan, the questionnaire, and knowledge of existing package delivery services, the research team coordinated with two rural transit operators—Southwest Area Regional Transit District and Concho Valley Transit District—to implement a pilot package delivery service in coordination with Greyhound Package Express. Researchers worked with pilot participants to develop goals, objectives, and performance measures to guide the implementation and operation of the pilot package delivery service.

The research resulted in a guidebook designed to inform rural transit operators of how to implement a package delivery service. The guidebook summarizes the fiscal, coordination,

Research Performed by: Texas A&M Transportation Institute

Research Supervisor: Zachary Elgart, TTI

Researchers: Kristi Miller, TTI Shuman Tan, TTI Suzie Edrington, TTI Jeffery Warner, TTI

Project Completed: 7-31-2017

and transportation impacts of rural transit package delivery service and provides elements for consideration in developing and implementing package delivery service using rural transit services.

What They Found

There is not a one-size-fits-all way to implement package delivery in rural areas. Initiation of rural, transit-based last-mile package delivery service requires transit agencies to implement non-standard policies and procedures and to coordinate with new and diverse service partners. Considerations include potential goals, objectives, and performance measures associated with implementing package delivery service, type of delivery service, insurance and liability considerations, partners in a potential agreement to operate the service, agreements to manage the service/partnership, and training and operations requirements.

Package delivery service is logistically challenging for companies that are dedicated to such service. As such, communication and education are key to a successful transit-based package delivery service. Marketing is a key component of a new service and something that must be approached according to the needs of the area. Teaching customers about how to purchase service and what service is available is an ongoing requirement. New services often require time to grow and attract customers. For this research effort, the pilot period was not long enough to allow the new package delivery service to become established and to attract customers. The outcomes are likely to be different given additional time.

What This Means

Package delivery can offer transit agencies the opportunity to provide an additional service to their customers, improve rural residents' accessibility to good and services, and provide additional service points from private carriers. Funding partners may need to develop an understanding of this concept to ensure that such programs are executed in the same way throughout Texas. It is crucial to have support from funding agencies to ensure successful programs.

Transit agencies should consider the opportunities and challenges that exist when implementing a package delivery service. For example, the low cost of entry with a private package carrier, the service diversity potential, the opportunity for economic development, and potential buy-in from stakeholders present many potential strengths and opportunities to transit agencies. However, the possibility of low demand for service, insurance requirements, and potentially limited profitability may pose challenges to transit agencies.

For More Information

Project Manager: Sonya Badgely, TxDOT, (512) 298-8168

Research Supervisor: Zachary Elgart, TTI, (713) 613-9241

Technical reports when published are available at http://library.ctr.utexas.edu.

Research and Technology Implementation Office Texas Department of Transportation 125 E. 11th Street Austin, TX 78701-2483 www.txdot.gov Keyword: Research

This research was performed in cooperation with the Texas Department of Transportation and the Federal Highway Administration. The contents of this report reflect the views of the authors, who are responsible for the facts and accuracy of the data presented here. The contents do not necessarily reflect the official view or policies of FHWA or TxDOT. This report does not constitute a standard, specification, or regulation, nor is it intended for construction, bidding, or permit purposes. Trade names were used solely for information and not for product endorsement.