

GUIDEBOOK

USING PUBLIC TRANSPORTATION TO FACILITATE LAST MILE PACKAGE DELIVERY

March 2017



TxDOT Project #: 0-6891-P2

CONTENTS

Introduction and Background	1
Guidebook Purpose Research Project Background State of the Practice Scan Fact-Finding Questionnaire	3 3
Review of State of the Practice	7
Challenges for Package Delivery in Rural Areas Infrastructure Deterioration Aging and Dispersed Population Increased Costs to Deliver Packages	7 8 9
Existing Examples and Opportunities in Rural Transit Package Delivery Questionnaire—Rural Transit Agencies' Delivery Experience Current Partnerships with Transit Agencies in Texas	12
Opportunities for Services and Markets	17
Growth of E-commerce Rural Transit District Span of Service Connections with the Community Markets	19 19
Challenges Associated with Service Provision	
Regulations and Operational Considerations Driver and Operator Requirements Passenger and Cargo Carrier Regulations	24 24
Incorporating Package Delivery into Existing Operations Fiscal Considerations	28
Public Funds for Provision of Transit Services Federal Grant Funding	

Perception and Marketing	30
Perception—Transit is a Public Good	30
Marketing For Profit Endeavor	30
Potential Service Models and Example Service Prices	33
Interlining Carrier Without Local Delivery	35
Pickup/Dropoff Facility	35
Complete Service	36
Service Pricing	37
References	43
Appendix A: Greyhound Package Express Service Center Pr Description and Agreement	ogram 45

This guidebook provides public transit agencies in rural Texas communities with the information necessary to implement a package delivery service in coordination with a private package delivery partner.

Chapter 1 introduces the guidebook, describes its purpose, describes the opportunity to provide package delivery via rural transit, and documents findings from previous phases of research.

Chapter 2 reviews the current package delivery industry and describes the needs that rural transit agencies might be able to fill by providing service

Chapter 3 outlines the opportunities for service provision in more detail and highlights specific market segments for rural transit agencies to pursue

Chapter 4 documents the challenges that may arise when implementing rural transit package delivery services.

Chapter 5 provides examples of possible service models and documents current package delivery pricing models used by other entities.

Authors

Suzie Edrington Zachary Elgart Kristi Miller Shuman Tan Jeffery Warner

Acknowledgments

This project was conducted in cooperation with the Texas Department of Transportation (TxDOT) and the Federal Highway Administration (FHWA). The authors thank the TxDOT Project Monitoring Committee, Sonya Badgley, Kelly Kirkland, and Kris Dudley.

The authors also thank members of the project team, Jonathan Brooks and Mark Szyperski, for their contributions, the public and private agencies who participated in the industry questionnaire and stakeholder workshops in Arlington, Austin, Odessa, and Pharr, Dave Marsh from Capital Area Rural Transportation System (CARTS) for presenting at the Austin workshop, and the TxDOT offices in Odessa and Pharr for hosting project workshops.

Disclaimer

This research was performed in cooperation with the Texas Department of Transportation (TxDOT) and the Federal Highway Administration (FHWA). The contents of this report reflect the views of the authors, who are responsible for the facts and the accuracy of the data presented herein. The contents do not necessarily reflect the official view or policies of the FHWA or TxDOT. This report does not constitute a standard, specification, or regulation

The United States Government and the State of Texas do not endorse products or manufacturers. Trade or manufacturers' names appear herein solely because they are considered essential to the object of this report.

01 CHAPTER

INTRODUCTION AND BACKGROUND

The Texas Department of Transportation (TxDOT) has funded Research Project 0-6891, conducted by the Texas A&M Transportation Institute (TTI), to learn more about coordinating package delivery service between private package delivery providers and rural public transit operators. This research project will develop an understanding of opportunities to address current gaps in existing package delivery service by coordinating the network of intercity bus carriers and rural transit agencies in Texas.

Other than this guidebook, project outcomes include:

- Documentation of best practices.
- Descriptions of challenges.
- A review of policy implications.
- Documentation of potential for revenue generation.
- Opportunities for greater connectivity and service points.
- A pilot package delivery service.

This section describes the purpose of the guidebook—the opportunity for rural transit agencies to deliver packages—and documents previous efforts related to this research project.

Guidebook Purpose

This guidebook is designed to inform rural transit operators of how to implement a package delivery service using information and input gathered from the stateof-the practice scan, the fact-finding questionnaire, and stakeholder workshops. The guidebook summarizes the fiscal, coordination, 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.

The guidebook includes the following sections:

- Review of the state of the practice.
- Opportunities for services and markets.
- Challenges associated with service provision.
- Potential service models and example service pricing.
- Appendices.

Opportunity to Broaden Rural Transit Services to Include Package Delivery Texas is home to over 26 million residents—a number that is expected to grow to approximately 45 million by 2040 (1). Commerce and quality of life in Texas depend on the daily delivery of millions of tons of goods shipped efficiently and affordably over the Texas freight transportation system by a network of highways, railways, waterways, ports, airports, pipelines, and land ports-of-entry. The multimodal freight transportation system efficiently connects local, regional, national, and global markets. With population levels increasing and growth in online purchasing and e commerce, the state's transportation network can expect increasing levels of freight movements.

The last portion of the freight delivery trip is referred to as the last mile and represents the largest and most inefficient portion for carriers. This ine ficiency is especially true in rural areas where customers may be spaced far apart. One consequence is that large package delivery carriers add fuel surcharges to rural packages, thus increasing the costs for rural residents. Improved efficiency of last-mile deliveries will benefit rural residents and freight carriers The Texas Freight Mobility Plan recognizes this issue and recommends facilitation of connections between local governments and the freight industry to enhance connectivity and develop solutions to last-mile challenges (1). Additionally, it states that Texas, "should invest in strategies and solutions that link the different freight transportation modes" and cites the following opportunities:

- Ensure the development of a system with adequate and available access points that facilitates the use of alternative modes beyond trucking to alleviate capacity concerns on highways (e.g., truck-rail facilities).
- Emphasize project selection criteria in the TxDOT planning process that support and prioritize funding of first- and last-mile connectors in loc tions with regional, statewide, and national significance, including both urban and rural connectors (1).

Rural transit agencies and intercity bus carriers are an important component of the Texas multimodal transportation system. Rural transit agencies operate demand-response, door-to-door, or curb-to-curb service throughout Texas, providing critical connections to goods and services for rural residents. In addition, intercity bus carriers offer package delivery services that can often deliver a package the same day it is shipped and provide direct connectivity between origins and destinations without the need for a distribution center. This 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. These service fees, an alternative revenue stream, could offer rural transit operators the opportunity to operate more sustainably and potentially leverage additional state- and federal-level funding sources by providing funding for local match. Additionally, new service and greater connections in rural areas could improve quality of life.

Research Project Background

This section summarizes the activities used to develop this guidebook from tasks completed in the project and highlights relevant findings, including the state of-the-practice scan, the fact-finding questionnaire, and rural and intercity bus workshops.

State of the Practice Scan

Researchers aimed to describe the current last-mile package delivery environment through a scan of the historic and current state of the practice to establish a baseline understanding of package delivery services in the United States and provide a better understanding of the opportunity for rural transit agencies to participate in freight delivery as a last-mile solution.

Documentation for this activity provided the following:

- The history and current state of the practice of last-mile package delivery services.
- The involvement (depth and breadth) of transit agencies in such services.
- Non-transit last-mile package delivery options.
- The network of intercity bus carriers that may interline with rural transit agencies.
- Relevant legislation, policies, and practices that affect package delivery operations.
- Specific examples found in existing literature of last-mile package delivery using rural transit.

The scan included a review of relevant literature, currently available services, and other information including local, regional, state, and federal laws pertaining to package delivery.

Key findings from the state-of-the-practice scan are

- In recent years, large service providers have documented increased demand for package delivery. The growth of online shopping (or e-commerce) contributed most to the increase of package volumes.
- Package deliveries in rural areas of Texas face challenges from infrastructure deterioration and a population that is decreasing, aging, and dispersed.
- The last mile of the logistics chain, which accounts for a large proportion of shipment costs and complexity of operations, is often the most inefficient. In rural areas, low residential density adds distance and time to delivery routes.
- Package delivery companies are investing in methods to reduce the cost of delivering packages. Possible solutions may include the utilization of centralized package pickup, dropoff locations, and package delivery on buses.
- The Federal Transit Administration (FTA) has no specific guidance on package delivery using public transportation vehicles. Due to considerations of complying with regulations and ensuring safety operations, adding cargo operations to a passenger service may require adjustments to operational and procedural practices for both the operating agency and driver performing the movement.
- The literature review indicated that providing package delivery services as a means of augmenting transit agency revenue is not a concept that is currently under investigation by researchers and public transit agencies; however, private intercity bus operators have a long history with package delivery.

Fact-Finding Questionnaire

To gather data directly from stakeholders through a fact-finding questionnaire, researchers identified relevant types of stakeholders for package/freight delivery coordination between public rural transit agencies and the private sector. Types of stakeholders included FTA, TxDOT, rural transit agencies, and private-sector companies. The scope of work envisioned primarily using an online questionnaire, but the research team expanded the data collection effort to include virtual meetings with private-sector companies.

Findings from the stakeholder questionnaire built upon the baseline state-ofthe-practice information collected and ascertained current experience with and interest in freight delivery as a last-mile solution. Key findings from the questionnaire are as follows:

- Seven out of 37 Texas rural transit agencies have experience with at least one of the following forms of delivery: meals-on-wheels, package delivery, and freight haul. Five out of the seven are involved in package delivery now or were in the past.
- The primary motivation for delivering packages on buses is that this service can generate additional revenue, facilitate coordination between agencies, and benefit community partnership. Package delivery revenue averaged approximately \$4,724 each year and ranged from \$1,800 to \$10,000.
- Keys to success for package delivery or freight haul include good communication, mutually beneficial arrangement, sufficient marketing, an detailed procedure on package tracking.
- Barriers to adopting package delivery on buses include lack of a proper contact person in package carrier companies, relative low revenue compared to the effort to coordinate package delivery, and the increasing need of on-demand package delivery service.

Rural and Intercity Bus Workshops

To develop dialogue between stakeholders and investigate findings the state-of practice scan and fact-finding questionnaire more thoroughl, 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.

The workshops acted as a platform to inform participants and gain feedback on possible options, challenges, barriers, advantages, and disadvantages of using public transit to facilitate package delivery, as well as to discuss opportunities for coordination of package delivery between the public and private sectors. Stakeholders, including representatives from the 37 Texas rural transit agencies, private and public intercity bus operators, private package delivery interests, TxDOT, and others, were invited to participate in the workshops.

The workshops revealed that transit agencies and private package carriers are equally interested in the concept of last-mile package delivery and perceive similar benefits

- Additional reach and market share.
- Increased ridership.
- Increased revenue.
- Opportunities to collaborate on service provision beyond package delivery.

There is not a one-size-fits-all way to implement package delivery in rural areas. The type of package delivery service is dependent upon local/regional markets and the size/capacity of the local partner. The diversity of potential markets is substantial.

Package delivery can offer transit agencies the opportunity to provide an additional service to their customers and improve rural residents' accessibility to good and services. It can provide additional service points from private carriers. Funding partners (FTA, TxDOT, metropolitan planning organizations [MPOs], and others) will need to be educated about this concept in order 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.

O2 CHAPTER

REVIEW OF STATE OF THE PRACTICE

This chapter reviews the state of the practice of package delivery, including the challenges associated with package delivery in rural areas and the increased costs to deliver packages, and describes existing examples of rural package delivery partnerships.

Challenges for Package Delivery in Rural Areas

Infrastructure deterioration and a population that is both decreasing and aging are the two major challenges that rural areas of Texas face for package delivery.

Infrastructure Deterioration

The condition of the infrastructure in rural areas is a concern for cargo and package pickup and delivery because current infrastructure and design standards/ policies have not kept pace with changes in the freight industry (1). According to the Texas Freight Mobility Plan, of the 768 projects that are currently under planning or development, 511 projects (67 percent) are located in rural areas of Texas (1). Researchers have identified several policies that address connections between rural and urban areas and first- and last-mile connectors, and many apply to rural areas. The objectives of the policies are listed as follows:

• Emphasize project selection criteria in the TxDOT planning process that support and prioritize funding of first- and last-mile connectors in locations with regional, statewide, and national significance, including both urban and rural connectors.

- Identify, preserve, protect, and invest in first- or last-mile connector routes from the Texas Freight Network to freight gateways and generators, such as ports, international ports-of-entry, and intermodal facilities.
- Improve and strengthen Texas's rural freight transportation system to enable the transport of energy, food, and other critical raw materials.
- Strengthen rural economic development opportunities through alternative modal options and connectivity.

Aging and Dispersed Population

Texas has the largest rural population in the United State—6,197,604 in 2010. Rural population increased 7.5 percent from 2000 to 2010. However, rural population is aging while increasing. The Texas State Demographer's Office estimates that as baby boomers continue aging and longevity increases, the percentage of the population that is age 65 or over is expected to grow nearly 300 percent over the next 30 years. Projections indicate that as people retire, they are expected to leave large urban centers and settle in rural areas of the state. The average population density in rural transit agencies was 24 persons per square mile in 2010-indicating very low-density, dispersed populations. Although total rural population in Texas is increasing because counties near metropolitan areas and along the border are growing rapidly, the percentage of the state's population residing in rural areas is expected to decrease over time. In counties in west Texas, the Panhandle, and some counties south of San Antonio, population is declining, and the migration of seniors is not expected to increase the density of population in rural areas. Figure 1, on the following page, illustrates the projected decline in population in several counties around the state by 2040.

An aging rural population introduces challenges related to the ability of people to drive themselves to goods and services. Online shopping with package delivery presents an alternative to visiting a retail establishment and may be a means to acquire products for those with limited mobility options. However, a dispersed population in low-density rural counties reduces the sustainability of private carriers due to greatly increased delivery cost.



Figure 1. Projected Percent Population Change by County, 2010-2040

Increased Costs to Deliver Packages

The last mile in the package delivery logistics chain accounts for the largest proportion of shipment costs and is often the most inefficient for carriers (2). In growing urban areas, the inefficiencies stem from the increasing number of delivery points, which add distance and time to current delivery routes. In rural areas, the challenge of increased delivery distance is exacerbated by the fact that, due to low residential density, there are fewer customers to cover the costs of providing delivery service.

A report commissioned by the Postal Regulatory Commission in 2011 stated that beginning in 1999, both UPS and FedEx introduced delivery area surcharges (DAS) to offset the costs associated with higher costs per delivery stop (3). Two types of DAS fees are regular DAS fees and extended DAS fees—extended fees are specifically for rural deliver. Table 1 presents the 2011 estimated last-mile delivery cost per package for UPS, FedEx, and USPS. These costs include both fixed and variable delivery costs. Although UPS and FedEx s costs are costs associated with both commercial and residential deliveries and USPS's costs are for residential service only, the average cost per package in an urban setting

is comparable among UPS, FedEx, and USPS—between \$1 and \$2. In a rural setting, the additional cost to provide delivery service compared to the cost of providing similar service in urban settings is the basis for extended DAS fees. USPS's destination delivery unit (DDU) rate of \$1.92 per package is the fee that USPS charges private carriers to complete last-mile delivery. This service avoids the extended DAS fee and thus reduces UPS and FedEx's rural delivery costs by nearly \$1.20 per package (3).

	• •	
Carrier	Urban	Rural (Extended DAS)
UPS	\$1.40	\$3.10
FedEx Ground/HD	\$1.52	\$3.19
USPS Parcel Post	\$0.87	\$0.57
USPS Bound Printed Matter Parcels	\$0.43	\$0.37
USPS DDU Rate	\$1.92	\$1.92
Note: DDU rate for a 4 lb. parcel in 2011		

Table 1. Cost of Delivery per Package

Source: SJ Consulting Group, Inc., 2011 (3)

As of October 2015, both FedEx and UPS had increased the companies' fuel surcharges despite significant decreases in fuel costs over the previous year. According to the Wall Street Journal, FedEx's increase is in response to heavier packages and a rise in residential deliveries (4). The same article states that "though e-commerce has taken off, margins on that business are narrower because of the higher costs of making deliveries to scattered homes" (4). USPS also serves more delivery locations than in previous years. USPS reports that their delivery points increased from 149.2 million locations in 2008 to 153.9 million points in 2014 (5). A 3 percent increase in delivery points (as experienced by USPS) can contribute to a significant amount of extra mileage, which increases fuel use and cost.

Existing Examples and Opportunities in Rural Transit Package Delivery

Package delivery is already being done by buses, with the major and regional intercity bus companies offering different levels of service. Several rural transit agencies in Texas have experience in delivery. The following section presents results from a questionnaire of rural transit agencies with experience with delivery programs and describes current partnerships transit agencies in Texas have with package delivery.

Public and private intercity bus operators provide service throughout Texas; however, because of diminished populations in rural areas, many of these companies do not operate routes through the most remote areas of Texas. The intercity bus and Amtrak network through Texas is illustrated in Figure 2.



Figure 2. Texas Intercity Bus and Amtrak Network

With the decline in rural intercity bus passenger service in Texas, rural package delivery service provided by intercity bus operators will also decline—coaches that provide passenger service transport packages to the same destinations; therefore, if passenger service is discontinued, package service is cancelled by default. Thirty-seven rural transit agencies serve the residents of Texas and operate in all counties except Newton and Chambers in southeast Texas (see Figure 3).

All rural transit agencies operate demand-response service or flexible route service that transports passengers to their door. The connections that rural transit agencies provide will become even more critical in the future as intercity bus carriers reduce service in response to diminished demand. These rural transit connections have the potential to augment/replace lost passenger and package delivery service.



Figure 3 Texas Rural Transit Districts

Questionnaire—Rural Transit Agencies' Delivery Experience

In our questionnaire about delivery programs, we asked rural transit agencies in Texas which types of delivery services they are involved in or were involved in in the past. Of the seven agencies that responded to the questionnaire:

- Three have been involved with meals-on-wheels.
- Five have experience with package delivery.
- Two have experience with freight haul.

Agencies with package/freight experience briefly described the nature of their involvement in the industry in the questionnaire. The following is a summary of their involvement:

- An agency delivered packages that arrived at our transit facility to various entities in their service area.
- An agency had freight haul and package delivery contracts with intercity bus providers. The agency would (a) operate a pickup and delivery

station for freight/packages, (b) process payment, (c) cost-share, and (d) transfer freight/packages with intercity bus providers.

- A health clinic uses a transit agency's services to send packages to a different healthcare provider in another city. The transit agency picks up the package and takes it to one of their facilities, where a driver from a neighboring rural transit agency picks up the package and takes it the rest of the way to its final destination
- An agency worked with an intercity transit facility to deliver packages to smaller communities already served by their transit services.
- An agency picks up medication from one rural health clinic and delivers it to their partner rural health clinic in another city.

The questionnaire asked respondents what motivated them to get involved in package delivery/freight haul. The following is a list of their motivating factors:

- Contracts with multiple intercity bus providers.
- Increased services to the community and establishment of a positive working relationship with intercity bus providers.
- Increased revenues.
- Services for which the transit agency will make extra revenue.
- Coordination between two rural transit agencies and intercity bus providers.
- Community and agency partnerships.

The questionnaire asked respondents for examples of characteristics of successful delivery programs. Agencies shared the following remarks:

- On-time delivery.
- Good and open communication with intercity bus providers.
- Already-established relationship with the community used beneficiall .
- Tracking/reporting requirement maintained.
- Arrangements that are mutually beneficial logisticall .
- Marketing and coordination.
- Set procedures for where/when to pick up packages, contact names, and phone numbers for each end, and delivery confirmation signatures.

Current Partnerships with Transit Agencies in Texas

Rural transit agencies are creating community partnerships through package delivery services with local agencies in some areas in Texas. According to Higgins et al., Concho Coaches, a small regional intercity bus service, receives their largest portion of revenue from the freight services the company provides. The Midland Reporter Telegram states that Concho Coaches delivers plumbing supplies and smaller oil field service equipment, as well as other packages products, as requested (6, 7). Additionally, regional package delivery carriers, such as Lone Star Overnight, are growing and provide a different array of services and service levels compared to the major carriers. On many occasions, they can offer direct delivery from origin to destination without first entering the package into a major sorting facility. This section describes the package delivery programs at Capital Area Rural Transportation System (CARTS), Southwest Area Regional Transit District (SWART), and South Plains Community Action Association (SPARTAN), as well as partnerships with Greyhound.

CARTS

CARTS is an interlining partner with Greyhound. Under their agreement, CARTS provides connecting service to Greyhound passengers and packages in the Austin, Texas, area. CARTS is also a Greyhound agent and sells Greyhound passenger tickets and Greyhound Package Express (GPX) services. All of CARTS's routes are available for Greyhound passenger and package delivery services.

According to CARTS's staff, the transit agency's connection with Greyhound allows CARTS to better serve its customers by providing increased accessibility and connectivity. The transit agency specifically views package delivery as an additional service that it can offer to improve the quality of life of its constituents and provide a more well rounded service.

SWART

SWART began providing package delivery services within the transit agency's region in 2016. These services are conducted under contract with Advance Headstart and include transportation of interoffice mail and other business related items.

SPARTAN

SPARTAN, in partnership with West Texas Opportunities' transportation program TRAX, has developed a community partnership with South Plains Rural Health to transport packages between health clinics. SPARTAN picks up the package in Levelland and takes it to a SPARTAN office in Lubbock, where a driver from TRAX picks it up and transports the package to Lamesa.

Greyhound

Greyhound works with CARTS and the Wichita Falls Transit System (Falls Ride) to provide pickup and delivery service for Greyhound's package delivery service—GPX — in the service area of each transit agency. CARTS uses its transit vehicles and Falls Ride uses a maintenance van (labelled with GPX decals) for the service. Because both CARTS and Falls Ride operate on demand service, they represent ideal partners for pickup and delivery service because of the on demand nature of the current package delivery market. CARTS and Falls Ride provide GPX pickup and delivery service under Greyhound's standard contract for this type of service.

According to Greyhound's representative, approximately 25 percent of the company's GPX service occurs in Texas, and new strategies/services are typically tested in Texas first. Assuming the required infrastructure is in place (a local agent and last-mile delivery provider), the company would consider entering any market as a package delivery provider.

Beyond GPX, Greyhound is also pursuing partnerships with transit agencies to increase Greyhound's passenger service area. These agreements, ideally, would enable the company to access transit agency facilities, such as transit centers, for passenger pickup/dropoff as well as coordinate passenger transfers to transit operated services so that Greyhound can offer passenger service (and potentially package service) to more destinations. Transit agencies may act as Greyhound agents to sell Greyhound tickets and GPX services.

O3 CHAPTER

OPPORTUNITIES FOR SERVICES AND MARKETS

This chapter describes the impact the growing e-commerce industry has on package volume, service span of rural transit agency, community connections needed for a successful package delivery program, and potential markets for rural transit package delivery services.

Growth of E-commerce

In recent years, large service providers (UPS, FedEx, and USPS) have documented increased demand for package delivery. Perhaps the most significant factor contributing to the growth in package volumes is the growth of online shopping, or e-commerce. Online shopping allows for access to goods that may not be available in all areas because of limited local demand or scarcity of the good. E-commerce provides an economic development opportunity for people to participate in customer to customer exchange of goods.

E-commerce includes customer to customer sales, in which customers purchase items from an individual instead of a major retail business. Customer to customer transactions involve the direct delivery of purchased items from the sellers to the buyers—deliveries most likely completed by one of the major package delivery companies or USPS—and potentially involve partnerships with public transit agencies.

E-commerce services add an additional shopping option for consumers. Traditional shopping, as described by the diagram on the left side of Figure 4, involves the customer traveling to a store and either purchasing a product or choosing an item to be delivered to the customer's residence. On the right, Figure 4 shows how the traditional retail pattern becomes more complex with the inclusion of online shopping. In addition to the store and major warehouse/distribution center, the infrastructure is expanded to include smaller warehouse hubs and pickup locations. All of these extra points require additional transport links. These additional links have the potential to increase overall transportation costs.



Source: (2) Copyright © 2015 Colliers International Figure 4. Evolution of Logistics Needs

Beyond the additional transportation links required to serve e commerce shoppers, additional logistics considerations are generated when customers need to return or exchange goods purchased online. In the United States, USPS partners with both UPS and FedEx to handle the first-mile pickup service for return packages due to USPS's practice of collecting outgoing mail and packages while delivering (3).

Figure 5 displays historical and forecasted levels of e commerce shopping in the United States from 2010 through 2018. Forecast assumptions reflect previous years' growth. By 2018, the forecast predicts that there will be 215 million online shoppers—an increase of 25 percent over the 2010 value of 172 million online shoppers.



Figure 5. Number of Digital Shoppers in the US from 2010 to 2018 (in millions)

Rural Transit District Span of Service

Of Texas's 254 counties, only one county (Newton County) does not have rural transit service. The average span of service for rural transit service in Texas is from about 5:30 a.m. to 7:15 p.m. (see Table 2). A little over 50 percent of rural transit agencies operate service on Saturdays, and about 10 to 15 percent operate on Sundays, on average. For specific rural transit agencies, see Transit Profiles: http://tti.tamu.edu/group/transit-mobility/resources/profiles/

Transit District	Mon-Fri, Service Begins	Mon-Fri, Service Ends	% with Saturday Service	% with Sunday Service
Mixed Urban/Rural	5:30 a.m.	7:23 p.m.	56%	11%
Rural Transit District	5:46 a.m.	7:05 p.m.	52%	14%

Table 2. Rural Transit Average Span of Service

Rural transit agencies serve the general public and provide an important mobility option to transportation-disadvantaged people (such as senior citizens and people with disabilities) via demand-response or flexible-route services. Transit vehicles visit local residential areas often to transport riders. Transit centers typically have professional staff on duty for transit customer services and have the potential to serve as a package pickup and/or dropoff center if the transit staff receives proper training.

Connections with the Community

IImplementing a package delivery program can be advantageous for both the public and private transportation sectors because of the potential to increase revenue, increase markets and service points, and create economic development opportunities within a community.

A successful rural package delivery program connects public transit agencies and private intercity bus carriers, especially when transferring packages from the main carrier (e.g., Greyhound Package Express, UPS, FedEx) to the lastmile carrier (e.g., transit agency). Collaboration and coordination with rural transit agencies and private package carriers can reinforce the first- and last-mile connection for package delivery. It is important to create central package dropoff and pickup locations that are convenient to both customers and package carriers. Integrating schedules and frequencies has the potential to increase both ridership and package delivery.

A successful rural package delivery program also needs community buy-in. Package delivery service may result in confusion or pushback from riders, or riders may view the new service as a loss of passenger service. Transit agencies are responsible for communicating service changes to their ridership. Public outreach and education should reiterate that passenger service will not be affected (and cannot legally be reduced to deliver packages) and that package delivery service has the potential to fund transit service and expand service. Furthermore, improved collaboration and coordination with state agencies, local governments, and MPOs is necessary to leverage freight and transit infrastructure improvements and increase support for coordinated package delivery.

Markets

Transporting goods efficiently contributes greatly to a vibrant econom . The potential markets that rural package delivery services could serve are substantial and diverse. Specific markets will vary depending on the area in the state. The following is a list of potential markets:

- Auto industry parts and equipment.
- Medical (biological samples, prescriptions, pharmaceutical).
- Environmental (air, water, soil, oil, agricultural).
- Military.
- College campuses.
- Restaurants, wholesale foods, and convenience stores.
- Perishables (fish, eggs, dairy)
- Private homeowners.
- Small businesses and artisans with small quantity shipping needs.
- Mail, documents, printed materials, and courier services.
- Same-day shipping needs.
- Regional employment centers/large companies.

The partnership between rural transit agencies SPARTAN and TRAX is a good example of rural package delivery services for medical products. A local health clinic uses the SPARTAN service to send packages to a different healthcare provider in Lubbock that is within the service area of neighboring rural transit agency TRAX. SPARTAN picks up packages and delivers them through the agency's commuter buses to its Lubbock office. TRAX drivers pick up the package in the Lubbock office and deliver packages to the final destinatio

The package delivery market is quickly transitioning to an on demand delivery model where customers can receive their purchases in as little as a few hours and typically in less than a week. This quick turnaround requires package delivery providers to respond to demand quickly and to offer flexible service. To meet the short timeframe delivery demands of consumers, goods must be transported overnight, and package delivery companies must be capable of receiving and beginning transport for outgoing shipments late into the day.



CHALLENGES ASSOCIATED WITH SERVICE PROVISION

This chapter describes the challenges faced by rural transit agencies that provide or facilitate package delivery service. These agencies may be challenged by regulations, operational requirements, fiscal constraints, public and agency perception, marketing, transit service commitments, and service area size. In Texas, the size of rural transit agencies range from compact areas like El Paso County and South Padre Island to the expansive area covered by West Texas Opportunities and Brazos Transit District. Rural transit agencies operate in all counties with the exception of Newton and Chambers Counties in southeast Texas (see Figure 1).

Regulations and Operational Considerations

There are numerous laws and regulations, both at the state and federal levels, associated with commercial package delivery. Regulations outline requirements for operator registration, driver licensing, and safety standards. Adding package delivery to a passenger service may require adjustments to operational and procedural practices for both the operating agency and driver performing the movement. Instituting a cargo transportation service requires a full understanding of federal and state operating requirements. This section provides an overview of some of the regulations and operational considerations that should be considered as part of a cargo service.

Driver and Operator Requirements

The following driver and operator requirements must be considered when adding package delivery service to passenger transportation services. Commercial vehicle operators (both passenger and cargo) are required to:

- Obtain a commercial driver license (CDL). In Texas, there are three classes of CDLs. Each CDL is defined by the weight of the vehicle that the driver will operate or the number of passengers the vehicle is capable of transporting.
- Maintain a designated minimum level of insurance. For bus operators, insurance must cover \$500,000 of liability for vehicles designed or used to transport more than 15 passengers (including driver) but less than 26 passengers (not including driver) or \$5,000,000 of liability for vehicles designed or used to transport 26 or more passengers (not including driver). The insurance requirement for private or for-hire cargo carriers operating above defined weight levels is \$500,000 of liabilit , with transporters of hazardous materials required to maintain a minimum insurance level of \$5,000,000 of liability coverage (9).
- Pass additional tests and obtain endorsements on their CDLs, including endorsements for passengers, hazardous materials, and school bus operation (10).
- Operate within a regulated number of hours, both driving and on-duty hours like loading and unloading cargo. For interstate carriers, the hours-of-service rules are slightly different between property-carrying drivers and passenger-carrying drivers. Intrastate carrier hours of service requirements are the same for all commercial motor vehicle drivers (10).
- Log and report driving and on-duty hours in most situations (a few rare exceptions may exempt drivers from maintaining the daily log documentation).

Transit agencies that perform package delivery will need to ensure that transit operators' CDLs are adequate for the addition of package delivery service. Drivers may need additional training to learn how to properly lift packages to prevent injuries. Driver retention can also be a major issue in many regions.

Passenger and Cargo Carrier Regulations

State and federal regulations may differ between passenger and cargo carriers. Additionally, anyone acting as a broker or a freight forwarder is required to register and obtain broker or freight forwarding authority from the United States Department of Transportation's Federal Motor Carrier Safety Administration (11).

Incorporating Package Delivery into Existing Operations

To successfully add package delivery service to existing passenger transportation services, a transit agency needs to consider the additional operating time and additional space required to execute a meaningful service. The following paragraphs outline important issues when incorporating package delivery into existing operations.

Concurrent passenger and cargo trips. Will the agency combine package delivery service and passenger service or schedule vehicles for dedicated package service? Transit agencies may provide package delivery service via dedicated cargo trips or as part of passenger transport trips. When determining which method of service provision is appropriate for a transit agency, the following considerations are important:

- Considering the time required to pick up or deliver to locations along a route. This consideration is important to determine if mixed trips (passengers and cargo) or cargo only trips are appropriate.
- Maintaining passenger utilization. This consideration is important because the ability to add cargo shipments without interfering with passenger utilization is essential when incorporating package delivery into existing operations.
- Maintaining current capacity. This consideration is important because taking seats away from passengers for cargo may interrupt current route capacity and vehicle utilization rates.
- Maintaining the same number of passenger seats. This consideration is important because vehicles designed to transport passengers are designed to address passenger needs; therefore, adding non-passenger-related activities within trips may take away from the mission of a transit operator. The ability to handle these shipments without interfering with passenger seating, such as underbelly storage, could eliminate this concern. For example, Concho Coaches operates 15-passenger vans with the last row of seats removed to accommodate luggage and packages (7).

Vehicle design. Is the vehicle capable of transporting packages and passengers safely and securely? Transport of packages requires a vehicle that has adequate cargo space that is separate and secure from passengers and is capable of carrying a specific load (in pounds). Adequate cargo space may be defined as a secure storage compartment in the location of a passenger seat or stock cargo areas (as in a van) or an aftermarket storage compartment installed in place of some passenger seats (without impeding safe access or passenger load minimums).

Time and scheduling. If package delivery service is integrated with passenger service, how does the time required to make deliveries affect overall transit

performance and customer experience? Integrating package delivery service with package service could increase dwell time and contribute to additional slack in the transit agency's schedule. The amount of time required to load and unload the packages at each stop must be considered when designing service. Because of the additional variable it introduces, package delivery service could also cause uncertainty within the passenger service schedule. The agency also needs to be prepared for handling and managing the additional paperwork related to each shipment, such as bills of lading.

Safety and Security of Passengers. How will the transit agency ensure that the packages it transports are secure and cannot endanger the operator or passengers? Maintaining a secure environment for both passengers and packages is an important consideration when implementing a package delivery program. Serving passengers is the primary mission of a transit operator, so adding cargo service should not impact the needs and safety of passengers. Passenger ingress and egress (especially under emergency conditions) must be considered when combining passenger and cargo services.

Package Handling and Storage. Does the transit agency have a secure facility to store packages while in transit? How will the transit agency handle instances when a package is undeliverable? Where will the package be delivered alternatively? Packages may need to be stored in secure locations at stations or designated locations, secured while in transit, and secured at the final destination. Basic package security training can be provided to public transit drivers, and transit terminals can be used as a training ground for local law enforcement agencies. Handling and storage of packages may require additional employee training to ensure that the employees properly lift, handle, store, transport, and deliver packages.

Processing and Paperwork. How will the transit agency handle paperwork associated with packages? How will the introduction of additional steps to operator routine (e.g., scanning package for tracking) impact performance and passenger service? There are several smartphone-enabled systems available for package scanning, which eliminates the need for scanners and reduces the cost of procuring and implementing additional hardware and technology.

Pricing. What will the pricing structure be? Pricing for package delivery service can be determined using per-mile fees, flat fees according to delivery zones, weight based fees, market-based fees, or in accordance with private-sector fee tables and policies. Furthermore, fees can be split into two categories:

- Local—packages that originate and terminate within the transit agency's service area.
- Last mile—packages that are transferred from a private carrier to be delivered within a transit agency's service area.

Delivery Destination. Where will the package be delivered? Rural package delivery does not have to exclusively provide door-to-door services. In fact, the final delivery destination represents the biggest challenge for package deliveryservices in rural areas. Existing package delivery companies (UPS, FedEx, USPS) vary in delivery practices in rural areas—delivering to the recipient's house or mailbox as conditions warrant. A transit agency should implement package delivery service policies to outline delivery location for different scenarios, such as whether to deliver a package to the mailbox on a roadway or to travel down a driveway and deliver at the door. Transit agencies should determine in their package delivery policies whether delivery to a house is going to occur within an operation with passengers on board.

Liability. Does the transit agency's insurance cover the additional risk/liability associated with package delivery service? Most transit agencies are part of the Texas Municipal Insurance Pool, which includes this type of coverage. Agencies should contact their insurance agent to discuss specific details about their flee and service types to ensure coverage. The liability associated with lost, damaged, or stolen packages broadens a transit agency's risk exposure.

Technology. What technological capabilities does the transit agency currently have at its disposal and what improvements to existing technology are required to execute effective package delivery services? The ability to track and dispatch packages in real-time is a key element of a competitive package delivery service, and without this capability, the service will struggle to compete effectively with large providers. A tracking system must allow consumers to check on packages, determine expected wait times, and answer other questions for themselves—this type of system reduces the need for customer service agents and increases customer satisfaction.

Fiscal Considerations

Funding sources that are dedicated to specific uses reduce flexibility an diminish opportunities for public and private entities to collaborate and identify innovative solutions to freight funding needs. This section documents fiscal challenges that transit agencies should consider when initiating a package delivery service.

Public Funds for Provision of Transit Services

Transit agencies in the United States receive funding from the federal government as a subsidy to support transit operation. The government controls the use of federal funds with detailed legislative code and FTA guidance and rules. If an agency uses federal money to fund any part of the agency's operation, that agency's services, policies, and practices must comply with federal guidance.

As of July 2016, the FTA has not drafted guidance for transit agencies that operate package delivery services. Package delivery service is not included in current FTA guidance on incidental use; however, two examples may have regulatory similarities: charter service and meals-on-wheels. While the existing legislation does not specifically mention package deliver , it governs non-mission specific activities and, pending interpretation by the F A, may be similar to future package delivery service guidance/regulations.

Charter Service—Charter service describes service provided on an exclusive basis to a specific group of paying customers. Some transit agencies operate charter services to augment revenues. According to Title 49 of the Federal Transportation Code, transit operators that receive federal funding may provide chartered service as an incidental service as long as the service "does not: (1) interfere or detract from the provision of the mass transportation service for which the equipment or facilities were funded under the Act; or (2) does not shorten the mass transportation life of the equipment or facility" (49 C.F.R. § 604.5[f]]).

Meals on Wheels—Federal funding guidance associated with Federal Section 5310, Formula Grants for Special Needs of Elderly Individuals and Individuals with Disabilities, outline requirements for transit agencies that deliver meals to people that are homebound. Section 5310 states that "Public transportation service providers receiving assistance... may coordinate and assist in regularly providing meal delivery service for homebound individuals if the delivery service does not conflict with providing public transportation service or reduce service to public transportation passengers."
Federal Grant Funding

Rural transit agencies receive federal Section 5311 non-urbanized area (rural) transit program formula funding for support of public transportation in rural areas with a population of less than 50,000. In addition to federal funding, rural transit agencies receive state and local funds for rural transit, including contract, county, and municipal government funds. In Texas, the state distributes Section 5311 funds in the following manner and order:

- Intercity bus allocation—unless the intercity bus service needs are being adequately met, TxDOT will allocate not less than 15 percent of the annual Section 5311 federal apportionment for the development and support of intercity bus transportation.
- Administration—TxDOT may use up to 15 percent of the annual federal apportionment to defray its expenses incurred for administration.
- Needs and performance formula allocation (Texas Transit Funding Formula)—an amount not to exceed \$20,104,352 after administration and intercity bus amounts are distributed is allocated based on needs and performance.
- Discretionary allocation—if the amount of the Section 5311 federal apportionments exceeds the \$20,104,352 maximum amount, a part of that excess not to exceed 10 percent will be available to the commission for award at any time during the fiscal year on a pro rata basis, competitively, or combination of both. Consideration for the award of these addition-al discretionary funds may include, but is not limited to, coordination and technical support activities, compensation for unforeseen funding anoma-lies, assistance with eliminating waste and ensuring efficienc , maximum coverage in the provision of public transportation services, adjustments for reduction in purchasing power,
- and reductions in air pollution • Vehicle levelue mile formula allocation—any amount of the annual Section 5311 federal apportionment that is not otherwise allocated will be allocated to non-urbanized areas based on the proportion of vehicle revenue miles for that non-urbanized area to the total vehicle revenue miles for all non-urbanized areas.
- Adjustments to allocation—adjustments are determined in the case of a change due to a transit agency's service area or declaration of a previously designated urbanized area as non-urbanized.
- Application and contract—new sub-recipients may receive funds by completing and complying with all application requirements, rules, and regulations applicable to the Section 5311 program.
- Adequate apportionment—each state must spend no less than 15 percent of its apportionment for the development and support of intercity bus transportation, unless the state certifies, after consultation with a fected intercity bus service providers, that the intercity bus service needs of the state are being adequately met. FTA encourages consultation with other stakeholders, like communities affected by the loss of intercity service.

States may not use more than 15 percent of apportioned Section 5311 funds, including funds apportioned under Section 5340 but not the Rural Transit Assistance Program allocation, to administer the Section 5311 program and to provide technical assistance to sub-recipients.

Under Section 5311, the federal share for capital assistance is 80 percent, and the federal share for operating assistance is 50 percent of net operating expenses. Net operating expenses are those expenses that remain after a transit provider subtracts operating revenues from eligible operating expenses. States may further define what constitutes operating revenues, but at a minimum, operating revenues must include farebox revenues. Some projects—to meet the requirements of the Americans with Disabilities Act, the Clean Air Act, or bicycle access projects—may be funded at 90 percent federal contribution. State or local funding sources may provide the local share.

Perception and Marketing

Transit agencies that implement package delivery service may be challenged by public perception and the need to market this new service as a for profit enterprise (instead of marketing services as a public good). According to the Texas Freight Mobility Plan (1), "The lack of awareness and understanding by the general public regarding the importance of freight movement in their daily lives impacts public support of projects and policies relating to freight."

Perception—Transit is a Public Good

Public funding, derived from tax dollars, grants, and other sources, is used to provide public transit. Therefore, public transit is a public good. Because of this fact, many people view transit service as a right and believe that it is something that should always be available and should always work. Public perception of transit agencies that begin to offer package delivery services could be challenging if the transit agency does not preempt misconceptions and inform their riders of how this new service will benefit them

Here are important elements to consider including when developing a public outreach or public engagement campaign:

- Information for riders that shows what it costs to provide current service.
- Descriptions of existing funding sources and the amount of revenue each generates.
- Descriptions of how new revenue may improve service.
- Policies that document that transit riders will always take precedence over packages.

Marketing For Profit Endeavor

Transit agencies that implement package delivery service may be challenged

by the need to market a service that is unlike anything the agency has offered previously. Package delivery service is a for profit enterprise—unlike transit service, which is typically provided for the lowest possible cost to the rider and is not designed or intended to generate a profit. If a transit agency takes on package delivery, it will be delivered as a for-profit endeavor specificall to increase revenue. Therefore, typical transit marketing may fall short of generating additional business.

Transit agencies that implement a package delivery service should consider marketing strategies that employ one or more of the following elements:

- Educating consumers on the benefits of the new service.
- Highlighting the fact that transit riders will not experience diminished service and that service could be expanded/improved.
- Encouraging transit users to "spread the word" about the package delivery service as a way of supporting their transit provider and community.
- Benefitting consumers/community by including a connection to intercity bus (ICB) for both passengers and packages.
- Offering same-day delivery in some areas.
- Offering economic development opportunities such as:
 - Couriers to connect complement transit package service with door to door and other package services.
 - Shipping dependent businesses (e.g., art galleries or crafts stores) located in the transit agencies' service area to take advantage of package delivery service.
 - The potential to grow an agriculture business by using package delivery service for lab work and to obtain needed tools quickly.
- Maintaining a social media presence.
- Hiring empowered drivers that represent the package delivery service via word of mouth and handouts (could be incentivized in exchange for commissions or something similar).
- Creating a specific/dedicated package delivery service logo

O5 CHAPTER

POTENTIAL SERVICE MODELS AND EXAMPLE SERVICE PRICES

This chapter discusses the potential service models that a transit agency may adopt to provide package delivery services and presents example pricing for package delivery services.

The service models used to provide package delivery service will vary depending on the transit agency's capacity for adding an additional service, the market for package delivery services, and the availability of facility space that is available to house the service. While transit agencies may partner with any package delivery provider (UPS, FedEx, Greyhound Package Express, and others), according to previous research as well as stated interest from ICBs, it is likely that transit agencies will experience the fewest challenges partnering with ICB package delivery providers such as GPX.

Intercity bus operators have a long history with package delivery. GPX dominates the package delivery segment of the intercity bus industry; however, regional operators offer package delivery service within their service areas and transfer packages to GPX as well as other service providers to complete package delivery routes through interlining agreements. GPX and regional intercity bus operators participate as members of the National Bus Traffic Association (NBTA) and provide connecting service under interlining agreements that allow passengers and packages to travel throughout the country by transferring between NBTA member bus operators. NBTA is responsible for establishing and managing these agreements. Part of NBTA's role is to function as a clearinghouse for revenue generated by selling tickets and providing package express services. The organization distributes revenue generated from ticket sales and package delivery fees according to the percent of service provided by each member bus operator involved in each transaction. As of 2012, the NBTA

distributed between its members \$180 million worth of revenue from transactions for passenger and package delivery service

Table 3 presents an example, according to the NBTA, of the interlining revenue sharing process.

	Table 3. 1	NBTA Interlining Re	venue Share Pro	ocess
Phase		Descrip	tion	
1	Package delivery	service worth \$50) is purchased	from Operator A
		destinat	ion.	the package from origin to
2	The total distance	e between origin	and destination	on is 1,000 miles.
2	Operator A transports	Operator B trans	·	Operator C transports the
	the package for 200	the package for miles (40%)	400	package 400 miles (40%) to its destination
	Revenue from the package de	livery service is	20% =	\$10.00 for Operator A
3	allocated to each operator acc	ording to the	40% =	\$20.00 for Operator B
	percent of service provided:		40% =	\$20.00 for Operator C

This section describes the three main service models that a transit agency might implement to provide package delivery service (options are modifiable to suit the agency and do not represent all options). This section also outlines which transit agencies and markets each service model is appropriate for and documents the benefits and challenges associated with each option in order to identify the considerations that a transit agency should assess when deciding which service model is right for the agency and the community.

Note: This section assumes that a transit agency will provide package delivery service in coordination with an ICB partner. Service models specific to coordination with companies such as UPS or FedEx may vary from these models.

Interlining Carrier Without Local Delivery

The simplest service model for providing package delivery service is for a transit agency to act as an intermediary package carrier as part of its agreement to provide interlining services to an ICB partner (as outlined above). Under this model, the transit agency (when picking up transfer passengers) would accept packages to transport as well. The packages transferred to the transit agency's vehicle are transferred again from the transit vehicle back to the ICB company's vehicle at a later transfer point. This type of service allows for packages to take the most direct route possible-for example, the alternative to transferring a package to a transit vehicle might require a longer overall trip for the package (because it has to go on the ICB's defined route instead of being able to take a shortcut via transit) and result in service that takes longer. This model does not allow customers to pick up or drop off packages. Additionally, this model does not require the transit agency to store packages or to accept payments for shipments. Interlining service is provided in exchange for mileage reimbursements directly from the NBTA on behalf of the transit agency's ICB partner. Table 4 outlines what types of transit agencies might pursue the interlining carrier without local delivery service model and the benefits and challenges associated with the model.

Table 4. Interlining Carrier without Local Delivery Specific

WHO'S IT FOR?	 Small agencies with limited staff time Agencies without secure package storage space Agencies that want to avoid handling package delivery fees and processing associated paperwork
BENEFITS	 Additional revenue generation from existing service Simple and fast implementation Does not require interaction with additional customers or separate customer service staff
CHALLENGES	 Potential to increase dwell time Additional driver responsibility

Pickup/Dropoff Facility

Acting as a pickup/dropoff location allows transit agencies to provide additional service options for package delivery and increases the market potential of the agency's package delivery service because of the higher level of service that customers receive. Under this service model, transit agencies will continue to provide interlining service for packages as well as providing space for packages to be stored. Stored packages include those that are dropped off by customers (with labels printed by the customer and paid for online) and packages that have

arrived and are awaiting customer pickup. This service model requires a transit employee to retrieve packages for customers to pick up. The package delivery partner will typically have direct access to the package storage area so that the transit agency is not required to assist with access or be available to transfer packages. Table 5 outlines what types of transit agencies might pursue the pickup/dropoff service model and the benefits and challenges associated with the model.

Table 5. Pickup/Dropoff Facility Specific

WHO'S IT FOR?	 Agencies that have available storage space Agencies that have greater service demand Agencies that can commit staff time to accept/retrieve customer packages
BENEFITS	 Potential for additional market-share Opportunities for staff/customer interaction and outreach
CHALLENGES	 Providing a dedicated space for package storage Pickup/dropoff service requires additional staff time

Complete Service

Transit agencies may decide to adopt a service model that offers complete service to customers. This model includes everything discussed in the previous service model sections, as well as sales of package delivery services and door to door pickup/delivery. Appendix A presents a complete description of this service model, according to GPX. Table 6 outlines what types of transit agencies might pursue the complete service model and the benefits and challenges associated with the model.

Table 6. Complete Service Specific

WHO'S IT FOR?	 Agencies with customer service centers (to facilitate sale of service) Agencies with excess facility space that can be converted to customer service use Agencies with high-demand for package delivery service
BENEFITS	 Highest potential revenue generation because of the additional level of service offered Greatest opportunity to expand access for the community
CHALLENGES	 Requires additional staff time and training to ensure package delivery fees are handled appropriately Requires coordination of courier drivers (or 3rd party contractors) to execute door-to-door services

Service Pricing

If a transit agency operates package delivery service in coordination with a private package delivery company, the private partner will determine service pricing. However, the transit agency may also choose to develop separate local/ regional package service that operates with a separate price schedule. Pricing will vary by market and be determined by numerous market specific factors, such as demand, local cost of living, services required, and other variables. As an example of what pricing schedules are currently used in the larger package delivery industry, Table 4 and Table 5 present service details for each intercity bus operator and service brokers with unique package delivery service, including the levels of service, delivery fees, insurance fees, and a description of the service area.

Service Area				Service available throughout the United States		Yo! Bus will ship packages between its three terminals	in New York, Philadelphia, and Boston
es		Fee	None	\$2.00	\$4.00 \$6.00 \$8.00	None \$2.00	\$4.00 \$6.00 \$8.00
Insurance Fees		Declared Value	\$0-\$100	\$101-\$300	\$310-\$500 \$501-\$700 \$701-\$1,000	\$0-\$100 \$101-\$300	\$301-\$500 \$501-\$700 \$701-\$1,000
Package Tracking			Yes, included in price	Yes, included in price	Yes, included in price	Tracking service not provided Tracking service not provided	Tracking service not provided
ost	, longest side = ue	Fee	\$24.50	\$34.55	requires corporate account	\$5.00	\$20.00
Shipping* Cost	*Shipping a 10 lb package, longest side = 12", \$100 value	Origin/Destination	Austin/Houston	Austin/Houston	n/a		
Shipping Options			 Shipped when space is available Available as door-to-door, counter-to-counter, or variation Oversize shipments require additional transit time Pickup and dropoff are available during normal business hours 		 Non-bus service Limited to 400 mi Door-to-door only 	 2-lb letter box Under 50 lb. Longest length < 24 in. 	 50 to 100 lb. maximum Longest length < 24 in.
			Standard	Priority	Direct Drive	Shipping Pack Small Shipping	Large Shipping
	ອເ	nsN	s (GPX)	eyhound Package Expres	Gr	sge Express	Yoi Bus Pack
	Ð	doos	T.ia	<u> National Package Deliv</u>		ασθε qε <u>li</u> very	<u>Regional Pack</u>

Table 7. Intercity Bus Operators - Package Delivery Options.

Continued.
Options
Delivery
Package
Operators -
y Bus
. Intercity
le 7.

Shipping Options		neV	Standard • Shipped when space is available only • Only available station-to-station		treme n	Left is the second seco	-9259	1	Standard otx	II, New Y Priority		Standard • 100 lb maximum	Company Priority • Package express contracted through Greyhound
Shipping* Cost	*Shipping a 10 lb package, longest side = 12", \$100 value	Origin/Destination F	Albany/Boston \$25		Kapias/ Kockiora				Albany/New York	Albany/New York		Brownsville/Corpus Christi	
Package Tracking	side =	Fee	\$25-\$26 Yes, included in price	\$28.17 Tracking service					\$25 Tracking service not provided	\$35 Tracking service not provided		\$26 Yes, included in price	
acking		D		rvice	D				rvice d	d		u p	
Insurance Fees		Declared Value	\$300	\$0-\$100	\$101–\$300	\$310-\$500	\$501-\$700	\$701-\$1,000	\$0-\$100	\$200	\$1,000	\$0-\$100	\$200-\$500
es		Fee	None	None	\$2.00	\$4.00	\$6.00	\$8.00	None	\$2.00	\$8.00	None	\$3.00
Service Area			Peter Pan Bus Lines will ship throughout their northeast service area to designated stations										

Table 7. Intercity Bus Operators - Package Delivery Options Continued.

Service Area			Washington, DC, Maryland,	Pennsylvania, New Jersev, New York				Only ship to Midland, Odessa	and San Angelo		
sa		Fee	free	\$2.00	\$4.00	\$6.00	\$8.00	None	\$1.00	\$9.00	
Insurance Fees		Declared Value	\$100	\$101-\$300	\$301-\$500	\$501-\$700	\$701-\$1,000	\$100	Per Additional \$100 value	Max Value	\$1,000
Package Tracking			Tracking service not provided					Tracking service not provided			
ost	longest side = e	Fee	\$24.35					\$24.50			
Shipping* Cost	*Shipping a 10 lb package, longest side = 12", \$100 value	Origin/Destination	Wilkes Barre/Clearfield	(161 mi)				San Angelo/ Midland			
Shipping Options			Maximum weight per package is 100 lb	 The extreme measurements of length, width, and height should 	not exceed 30" x 47" x 82"			• 100 lb maximum			
			Standard only					Standard			
	ອເ	neN	sÁe	swlier	T noi	Bnillı	Ŀ		ЧэвоЭ	oypu	DO
	ə	<u>1025</u>	Тләлір	әр әб	סכאס	סחמו ו	ipəA	ā	fic Service	isəq2	<u>rexas</u>

Source: Company websites and phone calls to company customer service representatives.

Broker	Freight Servicer	Shipping	g Options	Shipping Cost	ost	Package Tracking	Notes	Service Area
_{zī} snş		Self Service	Station-to- Station	10 lb package12" square	\$33.75		Additional parcels	Grevhound
] e 1	Greyhound GPX	Semi-Full Service	Door-to-Station	• \$100 value	\$65.00	Yes, included in	shipped results in	GPX Service
uo x	And the second sec	Semi-Full Service	Station-to-Door	From: Austin, TX	\$65.00	price	reduced overall fee.	Area
gog		Full Service	Door-to-Door	 Io: Houston, IX 	\$96.25			
		Self Service	Station-to-	 10 lb package 	\$60.00	Included in price.		
			Station	 12" square 		Only confirms		
		Semi-Full Service	Station-to-Door	 \$100 value 	\$120.00	departure and		
				 From: Austin, TX To: Houston, TX 		arrival		
£				Additional Fees				
sL ¹			Additional Weight	\$0.70	Per lb		s anomenica	Grevhound
գղե		Cour	Courier Pickup/Delivery	\$65.00	Per Pickup/Delivery	'Delivery	Offers discounted	GPX Service
ji91	Greyhound GPX	Saturo	rday Pickup/Delivery	\$100.00	Per Pickup/Delivery	'Delivery	rates for 5 or more	Area
<u>j</u> sn;			Courier Wait Time	\$1.00	Per Minute		poxes snipped	
8		ď	P&D Attempt Charge	\$65.00	Per Attempt	ţ		
		Oversized (Item's I	Oversized (Item's Longest Dimension)	\$10.00 (per)	36"-47"			
		Oversized (Item's I	Oversized (Item's Longest Dimension)	\$18.00 (per)	48"–82"			
			Additional Disso(s)	\$17.25	Per Box, Self Service	lf Service		
				\$27.25	Per Box, Full Service	ll Service		
			Storage Charges	\$5.00	Per Day/Pe	\$5.00 Per Day/Per Shipment (GPX rule)		
er ¹⁴		Broker's Service Ex package with delive	<i>ample:</i> We'll make a erv to Everett. WA. M	Broker's Service Example: We'll make an AM pickup in Bozeman, MT, of a 24" x 24" x 24" backage with delivery to Everett. WA. We will bick it up and put on the bus in Bozeman. o	man, MT, of a	Broker's Service Example: We'll make an AM pickup in Bozeman, MT, of a 24" x 24" x 24" backage with delivery to Everett: WA. We will bick it up and put on the bus in Bozeman. one of	Couriers at each end deliver/bickup	
JNO		our professional co	uriers will retrieve yo	our package from the	bus in Evere	our professional couriers will retrieve your package from the bus in Everett and deliver to door	package from GPX	Greyhound
с 0	סופאווסמוומ פרא	by 12:40 p.m. the r	next day for \$105.60.	by 12:40 p.m. the next day for \$105.60. Our competition offers service by 3:00 p.m. for	ers service by	/ 3:00 p.m. for	and complete the	
08-1		\$313.58. Or, you ca	an ship from New Yor	k to Washington, DC,	, in as little a	\$313.58. Or, you can ship from New York to Washington, DC, in as little as eight hours for only	first/last mile	Aled
[\$80.00.						

Table 5. Intercity Bus Freight - Brokerage Services and Fees.

REFERENCES

- 1. Texas Department of Transportation. Texas Freight Mobility Plan. Final Report. January 2016. Available at : ftp.dot.state.tx.us/pub/txdot/move-texas-freight/studies/freight-mobility/plan.pdf.
- 2. Colliers International. From First Mile to Last Mile: Global Industrial & Logistical Trends. October 2015. Available at: http://www.colliers.com/en-gb/-/media/Files/EMEA/emea/research/ industrial-and-logistics/ColliersFromFirstMiletoLastMileGlobalLogisticsEuropean%20Version.
- 3. SJ Consulting Group Inc. Report on Measuring the Benefits of Rural Postal Service for the Posta Regulatory Commission. August 2011. Online. Available at: http://www.prc.gov/sites/default/files/archived/Rural Service Report.pdf
- 4. Stevens, Laura. "Fuel Prices Fall, but FedEx and UPS Boost Surcharges." The Wall Street Journal. October 5, 2015. Online. Available at: http://www.wsj.com/articles/fuel-prices-fall-but-fedex-and-ups-boost-surcharges-1444088938.
- 5. United States Postal Service. "A decade of facts and figures." About. Website. Available at: https://about.usps.com/who-we-are/postal-facts/decade-of-facts-and-figures.htm
- 6. Thurber, Kathleen, "Concho Coaches works to provide service of old in changing transportation world." Midland Reporter-Telegram. Wednesday, January 12, 2011. Online. Available at: http://www.mrt.com/business/oil/article_392e80d2-842d-5b19-8127-d0ed96ce6f96.html.
- 7. Higgins, Laura, Jeff Warner, Curtis Morgan, and Philip Dunham. Examining Long-Distance Express Buses as an Extension of and Feeder to Passenger Rail Systems. UTCM 10-44-53, University Transportation Center for Mobility, Texas A&M Transportation Institute, College Station, TX, March 2011.
- 8. eMarketer. (n.d.). Number of digital shoppers in the United States from 2010 to 2018 (in millions). In Statista—The Statistics Portal. Available at: http://www.statista.com/ statistics/183755/number-of-us-internet-shoppers-since-2009/.
- 9. Texas Department of Motor Vehicles (TxDMV). "TxDMV Number," Requirements tab. Available at: http://www.txdmv.gov/motor-carriers/txdmv-number?tab=requirements.
- Texas Department of Public Safety (DPS). Commercial Vehicle Enforcement. A Texas Motor Carrier's Guide to Highway Safety. MCS-9, Revised August 2013. Available at: https://www. txdps.state.tx.us/InternetForms/Forms/MCS-9.pdf.
- 11. Whistler, Deborah. "New broker law impacts carriers who forward freight." Fleet Owner. September 27, 2013. Accessed at: http://fleetowne .com/regulations/new-broker-law-impacts-carriers-who-forward-freight.
- 12. Box on a Bus company website. Available at: http://www.boxonabus.com/
- 13. Bus Freighter company website. Available at: http://www.busfreighter.com/
- 14. 1-800 Courier company website. Available at: http://www.1-800courier.com/package-express.asp



Appendix A: Greyhound Package Express Service Center Program Description and Agreement

Greyhound Package Express Service Center Program



Greyhound has been in business for over 100 years. During that time we have provided package delivery service for large companies such as NCR. Clinique, American Red Cross and many more. With the growing shift to e-commerce, some consumers are seeking additional avenues to ship their packages. This includes the option to conveniently drop-off and pick up their packages locally instead of scheduling a pick up at their residence or business.

To help fill this void, Greyhound Package Express has developed the Service Center Program.

A Greyhound Package Express Service Center is a professionally-staffed location that provides shipping drop-off services to the general public.

Service Center Benefits

- Industry leading drop-off compensation
- Greyhound Package Express websites and customer service provide location information and directions (no selling)
- Simple acceptance procedures and service support requirements
- No invoicing Fee's paid automatically on a monthly basis

How it Works

- At drop-off Record shipment receipt confirming order number, labeling, number of items; obtain customer confirmation signature
- · Reply to order email alert confirming drop-off and number of items tendered
- Secure shipment until scheduled courier arrives to transfer to the Greyhound location for final transport (Depending on volume the pick up's can be Ad-hoc or regularly scheduled)
- Email courier pick up confirmation details once picked up.

A per shipment fee will be paid to the Service Center for their services. All customer aftercare will be provided by Greyhound Package Express.

Greyhound Package Express will also move toward offering this service for package pick up by the consumer as well. Once that program is finalized operating instructions will be made available.

Businesses suitable to be a Greyhound Package Express Service Center are locations with enough space to store multiple packages until a pick up occurs. Normally 100 square feet is ample space. They should also have traditional business hours where staff is available to receive the packages. On top of the additional revenue being a Service Center allows you for handling the shipments, another benefit is the additional visibility to your core business from the Greyhound Package Express customers.

Greyhound Package Express Service Center Program



This documents serves as an agreement between Greyhound Package Express and (insert company name) for inclusion into the Greyhound Package Express Service Center Program. This agreement is effective (enter clate) and will remain in effect unless cancelled by either party with written notice. Cancelation of the agreement will be effective seven (7) days from receipt of the written agreement.

Greyhound Package Express agrees to pay (insert company name) a fee as listed below for shipments accepted at their place of business for insertion into the Greyhound Package Express system. These shipments will be placed on-line by the originating customer and will be labeled.

- For shipments five (5) pieces or less, \$X.XX per shipment. A shipment is an individual order containing the same order number.
- For shipments with more than five (5) pieces, \$X.XX per shipment plus \$X.XX per additional piece after the first five (5) pieces.

For this fee consideration, (insert company name) agrees to ensure the below steps are followed.

- At drop-off Record shipment receipt confirming order number, labeling, number of items; obtain customer confirmation signature
- · Reply to order email alert confirming drop-off and number of items tendered
- Secure shipment until scheduled courier arrives to transfer to the Greyhound location for final transport (Depending on volume the pick up's can be Ad-hoc or regularly scheduled)
- Email courier pick up confirmation details once picked up

Shipments will be recorded at the drop-off location by the Greyhound Package Express Operations. Center using the Greyhound shipment tracking software ShipTrack.

The Greyhound Package Express Service Center (insert company name) will invoice Greyhound for the drop-off transaction. If the same company is also providing the transfer to the Greyhound location for final transport, a separate invoice should be produced.