

2013



INSTRUCTOR GUIDE

Managing Operating Cost for Rural and Small Urban Transit Systems

Product : 0-6694-P2 Project number: 0-6694

Managing Operating Cost Workshop Overview

<p>Purpose The purpose of the workshop is to provide rural and small urban transit managers and staff with tools to analyze, track, predict, and manage operational costs. The workshop will have a beginning and ending general session, and will provide six sessions in specific operating cost areas including:</p> <ul style="list-style-type: none"> • Staff: Managing Shifts, Managing Costs • Maintenance: Vehicle Replacement Plans and State of Good Repair • Contracting for Transit Services • Future Trends and Forward Thinking Approaches • Buying Fuel and Managing Consumption • Minimizing No-Shows and Late Cancellations <p>The workshop is a 6-hour format including breaks and lunch.</p>	<p>Instructors: Edrington Brooks Cherrington Hamilton Hansen</p>
<p>Time Allocation</p>	<p>6-hour workshop The 6-hour workshop includes a broad range of topics covering public transit operating costs. The workshop is divided into the following parts:</p> <ul style="list-style-type: none"> • Opening General Session • Breakout Sessions - participants will choose three of the six sessions to attend. Two sessions running concurrently. <ul style="list-style-type: none"> ○ Session 1: Maintenance: Vehicle Replacement/State of Good Repair ○ Session 2: Minimizing No-Shows and Late Cancellations ○ Session 3: Contracting for Transit Services ○ Session 4: Future Trends and Forward Thinking Approaches ○ Session 5: Buying Fuel and Managing Consumption ○ Session 6: Staff: Managing Shifts, Managing Costs • Closing General Session <p>The time allotment allows for activities and more in-depth discussion during the opening and closing sessions.</p>
<p>Learning Objectives</p>	<p>Learning objectives are outlined and detailed in the Lesson Plan section of this Instructor Guide</p>
<p>Instructional Method</p>	<p>The instructor will use a combination of lecture and participant activities to achieve learning objectives. Each lesson will include a participant or learning activity that reinforces the learning objectives. These activities may include group or individual exercises or role-play activities.</p>
<p>Verification</p>	<p>Verification will be accomplished by reviewing learning objectives at the end of each lesson, conducting learning activities, and discussion with participants.</p>
<p>Activities</p>	<p>Activities are outlined and detailed in the Lesson Plan section of this Instructor Guide.</p>
<p>Resource material(s) & References</p>	<p>The primary content source material is the Participant Workbook and Guidebook developed for TxDOT Project 0-6694: Managing Operating Cost for Rural and Small Urban Transit.</p>
<p>Classroom Needs</p>	<p>Two classrooms. At least four flip charts for class activities. Two projectors.</p>

Managing Operating Cost Workshop AGENDA

6-Hour Agenda				
Managing Operating Cost Workshop Agenda (9 AM – 3:00 PM)				
Time of Day	Title	Topics	Time Allotment	Instructor
9:00 – 9:45	Opening General Session	<ul style="list-style-type: none"> • Introductions • Review Workshop Agenda and Topics • Workshop Expectations 	45 minutes	Edrington
9:45 – 10:00	Break		15 minutes	
10:00 – 10:50	Session 1 Maintenance: Vehicle Replacement Plan/ State of Good Repair	<ul style="list-style-type: none"> • Projecting maintenance costs as part of the total budget • Identifying current maintenance cost-related practices • Gathering and using information to manage maintenance costs • Using maintenance efficiency performance measures • Creating policies, procedures, and strategies to manage maintenance costs 	50 minutes	Hansen
10:00 – 10:50	Session 2 Minimizing No-Shows and Late Cancellations	<ul style="list-style-type: none"> • Factors that drive no-shows/late cancellations (transit agency and patron). • No-show/late cancellation impact on productivity and cost. • Standardized forms/ tools to track no-shows/late cancellations. • Thresholds for excessive no-shows and late cancellations. • Managing no-shows/late cancellations using strategies, policies and procedures. • Potential cost savings in reducing no-shows/ late cancellations. 	50 minutes	Edrington
10:50 – 11:00	Break		10 minutes	

6-Hour Agenda
Managing Operating Cost Workshop Agenda (9 AM – 3:00 PM)

Time of Day	Title	Topics	Time Allotment	Instructor
11:00 – 12:00	Session 3 Contracting for Transit Services	<ul style="list-style-type: none"> • Identifying why a public transit agency might contract for transit services • Providing examples of public transit agencies in Texas that contract to provide transit services • Understanding why and how a private contractor might be able to reduce operating costs as compared to the public transit agency • Recognizing the circumstances favorable for privatization (or not) • Listing the possible pitfalls for contracting for services • Identifying possible cost savings and savings offsets • Choosing the right procurement method • Reviewing best practices for procurement • Ensuring the contractor delivers quality service 	60 minutes	Cherrington
11:00 – 12:00	Session 4 Future Trends and Forward Thinking Approaches	<ul style="list-style-type: none"> • Overview of approaches and research methods in managing operating costs • Implementation of technology and understanding new or recent technology • Service design and impact of changing demographics • Fleet mix and fuel efficiency • Statewide and national deployment examples • Localizing savings from implementation of regional and national trends • Discussion and feedback from Activity • Conclusion, synthesized examples 	60 minutes	Hamilton
12:00 - 1:30	Lunch		90 minutes	

**6-Hour Agenda
Managing Operating Cost Workshop Agenda (9 AM – 3:00 PM)**

Time of Day	Title	Topics	Time Allotment	Instructor
1:30 – 2:20	Session 5 Buying Fuel and Managing Consumption	<ul style="list-style-type: none"> • Identifying fuel cost drivers and budget impact • Purchasing fuel and housing fuel considerations (pros and cons) to gain best fuel price and minimize travel time to fueling stations • Managing to reduce fuel consumption (driver behavior/training, policies on idling and scheduling, planning for fleet replacement and maintenance) • Calculating potential cost savings in implementing fuel purchasing and management strategies 	50 minutes	Edrington
1:30 – 2:20	Session 6 Staff: Managing Shifts, Managing Costs	<ul style="list-style-type: none"> • Operations productivity vs. cost-savings • Evaluate current management practices • Types of information/analysis to inform your staff levels • Best-practices to control labor costs and improve service quality 	50 minutes	Brooks
2:30 – 3:00	Closing General Session	Workshop Summary and Review	30 minutes	Edrington

Managing Operating Cost Workshop LESSON PLANS

Opening General Session

Learning Outcomes	<p>At the end of the opening general session, the participants will be able to:</p> <ul style="list-style-type: none"> • Identify workshop participants and workshop expectations • Describe the workshop objectives and expected outcomes • Determine the three of the six breakout session topics of most interest • Fill-out the workshop evaluation sheets
Topics	<ul style="list-style-type: none"> • Introductions • Review Workshop Agenda and Topics • Workshop Expectations
Instructional Method	<p>Instructor(s) welcomes participants, introduces him/herself, and leads participants through introductions. Participants introduce themselves and provide a brief description of their role and experience with public transit, and their expectation for the workshop (30 minutes)</p> <p>Instructor provides an overview of the workshop objectives, outcomes, agenda, and reference materials (10 minutes)</p> <p>Instructor discusses ground rules, sign-in sheet, feedback forms, and other housekeeping items as needed (5 minutes)</p> <p>Total Time: 45 minutes</p>
References	Participant Workbook and Guidebook

Session 1: Maintenance: Vehicles and State of Good Repair	
Learning Outcomes	<p>At the end of the lesson, the participant will be able to:</p> <ul style="list-style-type: none"> • Implement proper vehicle database practices • Identify minimum service-life standards and vehicle retirement points • Assess the importance of healthy spare-ratios • Implement strategies to extend the life of vehicles
Topics	<ul style="list-style-type: none"> • Projecting maintenance costs as part of the total budget • Identifying current maintenance cost-related practices • Gathering and using information to manage maintenance costs • Using maintenance efficiency performance measures • Creating policies, procedures, and strategies to manage maintenance costs
Instructional Method	<p>Instructor uses interactive lecture using question-and- answer methods with PowerPoint slides.</p> <p>Instructor introduces the session topic and identifies the expected learning outcomes. (2 minutes)</p> <p>Instructor provides an introduction about the importance of measuring and projecting maintenance costs. (5 minutes)</p> <p><u>Activity 1:</u> Instructor leads participants, as a group, in completing a maintenance practices checklist. This list helps the group look at current practices as well as areas for improvement. (5 minutes)</p> <p>Presentation continues with slides about gathering fleet data, using spreadsheet files, inspection and maintenance practices, considering FTA guidelines, and planning for spares ratio. (15 minutes)</p> <p><u>Activity 2:</u> Participants are presented with an example of a fleet inventory as well as FTA standards for minimum vehicle service-life. After filling out retirement year targets based on standards participants report and discuss their findings with the group. Then the group identifies new retirement years based on a regular replacement schedule. (15 minutes)</p> <p>Key takeaways, questions (8 minutes)</p> <p>Total Time: 50 minutes</p>
References	<ul style="list-style-type: none"> • Participant Workbook and Guidebook • Handout 1: Maintenance practices checklist • Handout 2: Projecting service-life of a fleet

Session 2: Minimizing No-Shows and Late Cancellations	
Learning Outcomes	<p>At the end of the lesson, the participant will be able to:</p> <ul style="list-style-type: none"> • Identify factors that lead to no-shows/late cancellations (transit agency and patron factors). • Explain how no-shows/late cancellations impact a transit agencies cost. • Document and track no-shows/late cancellations to determine fault and monitor thresholds. • Determine whether no-shows/ late cancellations are excessive. • Identify strategies, policies and procedures for managing no-shows/ late cancellations.
Topics:	<ul style="list-style-type: none"> • Factors that drive no-shows/late cancellations (transit agency and patron). • No-show/late cancellation impact on productivity and cost. • Standardized forms/ tools to track no-shows/late cancellations. • Thresholds for excessive no-shows and late cancellations. • Managing no-shows/late cancellations using strategies, policies and procedures. • Potential cost savings in reducing no-shows/late cancellations.
Instructional Method:	<p>Instructor uses interactive lecture using question-and-answer methods with PowerPoint slides.</p> <p>Instructor introduces the session topic and identifies the expected learning outcomes. (3 minutes)</p> <p>Instructor provides an introduction about no-show impact to transit agency productivity and budgets. (2 minutes)</p> <p><u>Activity 1:</u> Instructor will lead participants, as a group, in listing the factors that drive no-shows on a flip chart, grouping the factors by transit agency influenced versus patron influenced. (5 minutes)</p> <p><u>Handout 1:</u> Instructor will present a handout to aid transit agencies in assessing factors in managing no-shows/ late cancellations. Presentation continues with slides about recommendations for no-show/late cancellation policies and procedures to include incentives and disincentives. (20 minutes)</p> <p><u>Handout 2:</u> Instructor will present examples of forms to track no-shows and late cancellations, door hangers and letters/postcards for communicating with patrons concerning policies. Instructor will lead an open discussion on strategies used by the group. (10 minutes)</p> <p>Instructor will provide an example of estimating the cost savings associated with a reduction in no-shows/late cancellations for a rural or small urban transit agency. (5 minutes)</p> <p>Key takeaways, questions, and wrap up. Verification of Learning Outcomes through question-and-answer. (5 minutes)</p>
References:	<ul style="list-style-type: none"> • Participant Workbook and Guidebook • Handout 1: No-show/Late Cancellation Assessment • Handout 2: Examples including tracking forms, door hangers, letters/postcards

Session 3: Contracting for Transit Services

<p>Learning Outcomes</p>	<p>At the end of the lesson, the participant will be able to:</p> <ul style="list-style-type: none"> • Name the reasons why a transit agency might contract to deliver transit services • Explain the circumstances when it is feasible for a private contractor to reduce operating costs • Identify the cost savings and savings offsets that should be considered before contracting for services • Describe the steps for a successful procurement process • Identify best practices for effective contract management
<p>Topics</p>	<ul style="list-style-type: none"> • Identifying why a public transit agency might contract for transit services • Providing examples of public transit agencies in Texas that contract to provide transit services • Understanding why and how a private contractor might be able to reduce operating costs as compared to the public transit agency • Recognizing the circumstances favorable for privatization (or not) • Listing the possible pitfalls for contracting for services • Identifying possible cost savings and savings offsets • Choosing the right procurement method • Reviewing best practices for procurement • Ensuring the contractor delivers quality service
<p>Instructional Method</p>	<p>Instructor uses interactive lecture using question-and-answer methods with PowerPoint slides.</p> <p>Instructor introduces the session topic and identifies the expected learning outcomes (3 minutes)</p> <p>Instructor reviews the reasons why a transit agency might contract for transit services and the types of contracts that are most often used (5 minutes)</p> <p><u>Activity 1:</u> Asking participants to volunteer examples of existing contracts for services by the participant's agency (2 minutes)</p> <p>Instructor follows Activity 1 with example of public transit agencies in Texas that contract to provide transit services (3 minutes)</p> <p>Instructor discusses why agencies most often contract for services as a way to increase efficiency and reduce operating costs. Instructor provides suggestions how to evaluate an agency to determine if circumstances are favorable for privatization (or not). (10 minutes)</p> <p><u>Activity 2:</u> Asking participants to consider a case study example of a transit agency and respond to key questions to determine if the circumstances at the transit agency are favorable for privatization. Provide handout for the exercise. (5 minutes)</p>

Session 3: Contracting for Transit Services

	<p>Following Activity 2, the instructor provides a list of the possible pitfalls for contracting for services to reinforce the analysis. Instructor explains how to evaluate possible cost savings and savings offsets.(3 minutes)</p> <p>Instructor continues presentation to describe the different methods for procurement and how to choose the best procurement method. (6 minutes)</p> <p>Instructor continues to present the best practices for procurement and reinforces additional resources for reference. (8 minutes)</p> <p><u>Activity 3:</u> Asking participants to complete an exercise (handout) to match specific circumstances to the correct procurement method. The handout will also provide a summary of the best practices for procurement with resources listed. (5 minutes)</p> <p>Instructor wraps up presentation by emphasizing successful contracting requires effective contract management and identifies the requirements for performance measures and performance monitoring. (10 minutes)</p> <p>Wrap Up:</p> <ul style="list-style-type: none">• Ask summary questions and ask audience to respond• Each summary question will focus on one of the Learning Outcomes• Following each response, list or describe the appropriate response <p>Total Time: 60 minutes</p>
References	<ul style="list-style-type: none">• Participant Workbook and Guidebook• <u>Handout 1:</u> Analysis guide to determine if the circumstances at a transit agency are favorable for privatization• <u>Handout 2:</u> Identify appropriate procurement methods and summarize best practices for procurement

Session 4: Future Trends and Forward Thinking Approaches

<p>Learning Outcomes</p>	<p>At the end of the lesson, the participant will be able to:</p> <ul style="list-style-type: none"> • Understand the current innovative trends and approach categories used to identify cost savings for other rural and small urban transit providers in Texas; • Identify and evaluate opportunities for similar approaches within attendees service area (low hanging fruit); • Develop a long-range scope document or framework for implementing new approaches locally • Identify sources and peers to help implement state and national trends locally
<p>Topics:</p>	<ul style="list-style-type: none"> • Overview of approaches and research methods in managing operating costs • Implementation of technology and understanding new or recent technology • Service design and impact of changing demographics • Fleet mix and fuel efficiency • Statewide and national deployment examples • Localizing savings from implementation of regional and national trends • Discussion and feedback from activity • Conclusion, synthesized examples from activity, questions
<p>Instructional Method:</p>	<p>Instructor uses interactive lecture using question-and-answer methods with PowerPoint slides, group exercise, and handouts.</p> <p>Instructor presents an overview and desired outcome of the topic: Why transit practitioners might want to pilfer from their peers. (5 minutes)</p> <p>Instructor provides samples and examples from each of three identified cost-saving categories discussed in Guidebook Chapter 8 covered in detail with time for attendees to ask questions about ideas and technology which might be new to them.</p> <ul style="list-style-type: none"> • Implementation of technology and understanding new or recent technology (5 minutes) • Service design and impact of changing demographics (5 minutes) • Fleet mix and fuel efficiency (5 minutes) <p>Instructor presents examples in national resource material used by peers in Texas. Example to include Brazos Transit District use of Google Maps to place route and stop information. (10 minutes)</p> <p><u>Activity 1: Identify, Plan, Execute, Evaluate</u> (15 minutes)</p> <p>Small group breakout of tables of four to six participants. Group participants discuss methods they may use with others in breakout group</p> <ul style="list-style-type: none"> • Identify one sample transit system in group, (real or fictitious) • Discuss state of current practice • Develop two new trends or approaches not currently used, (group acts as policy board) • Outline a deployment plan, (timeline, costs, constraints) • Discuss how they might evaluate success of outcome • Each group presents top two or three ideas they feel might work to reduce costs within their system

Session 4: Future Trends and Forward Thinking Approaches

	Instructor leads discussion and provides feedback on activity outcomes. (10 minutes) Wrap Up: <ul style="list-style-type: none">• Verification of Learning Outcomes through question and answer. (5 minutes) Total Time: 60 minutes
References:	<ul style="list-style-type: none">• Participant Workbook and Guidebook

Session 5: Buying Fuel and Managing Consumption	
Learning Outcomes	<p>At the end of the lesson, the participant will be able to:</p> <ul style="list-style-type: none"> • Explain the controllable and uncontrollable factors of fuel cost • Examine transit agency purchasing methods and management of fuel consumption to determine areas where fuel efficiency improvements can be made. • Describe fuel purchasing and fuel management strategies.
Topics:	<ul style="list-style-type: none"> • Identifying fuel cost drivers and budget impact • Purchasing fuel and housing fuel considerations (pros and cons) to gain best fuel price and minimize travel time to fueling stations. • Managing to reduce fuel consumption (driver behavior/training, policies on idling and scheduling, planning for fleet replacement and maintenance) • Calculating potential cost savings in implementing fuel purchasing and management strategies.
Instructional Method:	<p>Instructor uses interactive lecture using question-and-answer methods with PowerPoint slides.</p> <p>Instructor introduces the session topic and identifies the expected learning outcomes (3 minutes)</p> <p>Introduction about fuel impact to transit agency budgets discussing the proportion of transit agency budget that is fuel expense. (2 minutes)</p> <p><u>Activity 1: Identify Uncontrollable and Controllable Fuel Costs.</u> Ask participants to list the uncontrollable and controllable elements that drive fuel cost on flip chart (purchasing, scheduling, vehicle maintenance, fleet and fleet/condition, driver behavior/training). (5 minutes)</p> <p><u>Handout 1: Transit Agency Fuel Practices.</u> The purpose of this handout is to provide a tool for participants to examine their transit agency fuel practices. The instructor will provide a handout to participants to complete regarding their transit agency's practices in managing and purchasing fuel.</p> <p>Instructor takes a quick poll on fuel purchasing/housing methods used by group and size of area served (fuel tanks, fuel cards, city/county agreements, local stations, contractor provided). Presentation continues with slides about circumstances to consider in determining fuel purchasing method used and pros and cons of differing methods. (15 minutes)</p> <p>Instructor refers back to flip chart leading participants into discussion of controllable fuel consumption elements—driver behavior, idling policies, scheduling impacts, fleet replacement, fleet type, age, maintenance. Presentation continues with slides about driver training and incentives that focus on fuel economy, policies of idling and scheduling to minimize deadhead and maximize productivity, fleet replacement plan and maintenance plan impact. (20 minutes)</p> <p>Key takeaways, questions, and wrap up. Verification of Learning Outcomes through question and answer. (5 minutes)</p> <p>Total Time: 50 minutes</p>
References:	<ul style="list-style-type: none"> • Participant Workbook and Guidebook

Session 5: Buying Fuel and Managing Consumption	
	<ul style="list-style-type: none">• <u>Handout 1</u>: Tool to analyze transit agency current practices regarding fuel purchasing and management

Session 6: Staff: Managing Shifts, Managing Costs	
Learning Outcomes	<p>At the end of the lesson, the participant will be able to:</p> <ul style="list-style-type: none"> • Evaluate current management practices • Employ information to manage operator and dispatcher shifts • Recall basic issues and strategies surrounding costs for transit operations staff
Topics	<ul style="list-style-type: none"> • Operations productivity vs. cost-savings • Evaluate current management practices • Types of information/analysis to inform your staff levels • Best-practices to control labor costs and improve service quality
Instructional Method	<p>Instructor uses interactive lecture using question and answer methods with PowerPoint slides.</p> <p>Instructor introduces the session topic and describes the expected learning outcomes. (2 minutes)</p> <p>Instructor illustrates the potential outcomes of changes to a transit agency's productivity—productivity or reduce operating costs. (3 minutes)</p> <p>Instructor describes common methods of operations management self-evaluation. (5 minutes)</p> <p><u>Activity 1:</u> Individual activity “How is my agency doing now?” Participants are provided a worksheet containing a list of questions, then asked to answer the questions and participate in a brief group discussion afterward. (5 minutes)</p> <p>Instructor discusses types of analysis transit industry uses to evaluate necessary operator and dispatcher labor force. Discussion then focuses on the role of dispatch staff in the productivity of a transit agency. (5 minutes)</p> <p><u>Activity 2:</u> Small group activity (groups of 2 or 3) “How many dispatchers do we need?” Attendees given background information and a worksheet to learn to use call volume data to strategically plan dispatcher shifts. (12 minutes)</p> <p>Instructor describes best-practices to control labor costs and improve service. (5 minutes)</p> <p><u>Activity 3:</u> Group activity (by table) “Better practices based on experience”. Attendees discuss professional experience improving operations management and identify one or two examples to share with the room. (8 minutes)</p> <p>Instructor answers questions from participants; other participants welcome to engage in group discussion (5 minutes)</p> <p>Total Time: 50 minutes</p>
References	<ul style="list-style-type: none"> • Participant Workbook and Guidebook

Closing General Session

Learning Outcomes	At the end of the closing general session, the participants will be able to: <ul style="list-style-type: none">• Summarize the outcomes of the workshop• Provide feedback through evaluation forms
Topics	<ul style="list-style-type: none">• Review Workshop Expectations• Review of Workshop Outcomes• Evaluations
Instructional Method	Instructor reviews the participant's expectations of the workshop, summarizes the activities of the workshop and assesses learning outcomes through question and answer session. Participants are given an opportunity to complete workshop/instructor evaluations. (30 min.) Total Time: 30 minutes
References	Participant Workbook and Guidebook