

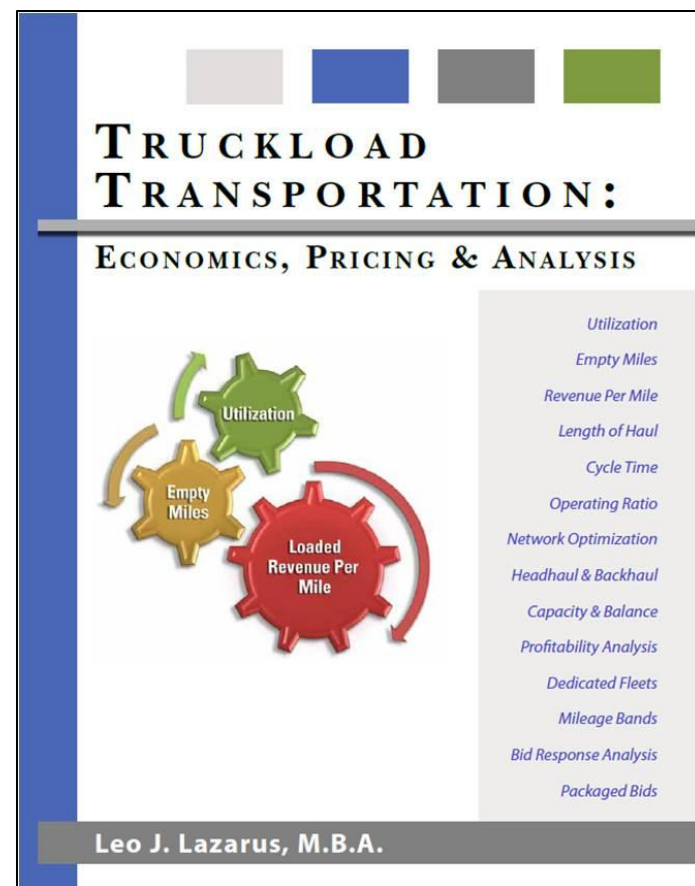


# Truckload Transportation: Economics, Pricing & Analysis

*Written by Leo J. Lazarus*

*Truckload Transportation: Economics, Pricing & Analysis* is a 464-page book that covers every facet of truckload pricing including the truckload business model, one-way pricing concepts, dedicated fleet pricing and design, and bid response analysis. The book covers all the primary truckload transportation concepts such as capacity and balance, utilization, length of haul, empty miles, and revenue per mile.

The book provides an in-depth review of all forms of dedicated fleet pricing including fixed-variable, utilization scales and over-under. The dedicated pricing chapters also cover special topics such as shuttle pricing, short haul pricing, and mileage band pricing. The book also includes four detailed case studies in bid response analysis, a detailed chapter on network analysis, and a special chapter of truckload transportation concepts specifically for truckload shippers.



# Truckload Transportation: Economics, Pricing & Analysis

*The Book*

## About the Author

Leo J. Lazarus has 15+ years of experience as a financial analyst, pricing analyst, transportation consultant and adjunct professor of business. As a part-time college instructor, Leo taught courses including Business Statistics, Economics, Management Accounting, Corporate Finance, Management, Marketing, and Operations Management.

In the truckload transportation field, Leo worked for Memphis-based M.S. Carriers from 1995 to 2002, primarily as a senior pricing analyst for both dedicated and one-way transportation. Leo worked with the most sophisticated and complex shipper distribution networks including Sears, FedEx, The Home Depot, Wal-Mart, Anheuser-Busch and many others. Since 2002, Leo has been an independent consultant in the truckload transportation field, serving the needs of major shippers and carriers of all sizes.

Leo has an M.B.A. from The University of Mississippi and a B.B.A. in Management, also from The University of Mississippi.



# Truckload Transportation: Economics, Pricing & Analysis

*The Book*

## Carriers will learn...

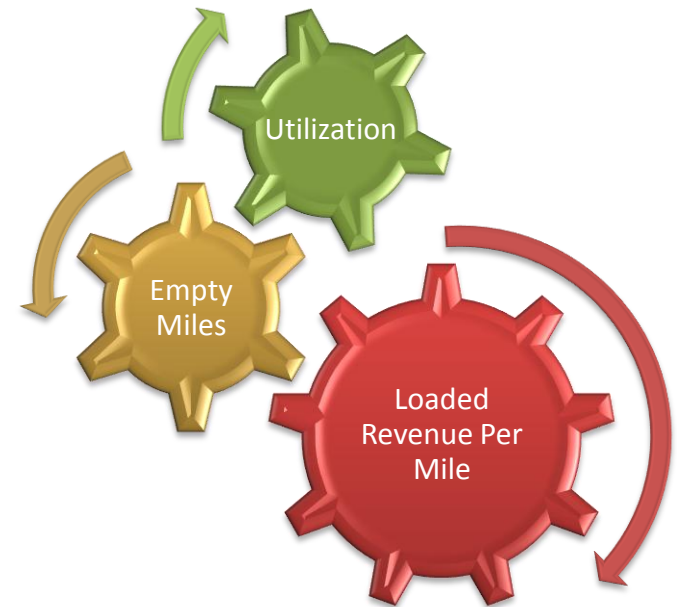
how utilization, empty miles, loaded revenue per mile, and length of haul interact to create a profitable network.

how to evaluate the one-way network through well-designed financial statements and operating reports.

how to analyze the contents of a bid and design creative and effective packaged bid strategies.

how to properly account for utilization levels and capital investment requirements in dedicated fleet pricing.

how to correctly price semi-dedicated opportunities such as short haul mileage band contracts.



**...and much more.**



# Truckload Transportation: Economics, Pricing & Analysis

*The Book*

## Shippers will learn...

a deep understanding of the carrier business model and how shipper requirements impact transportation costs.

how carriers formulate pricing strategies and use bid opportunities to optimize and balance the freight network.

how carriers design and price dedicated fleets along with the pros and cons of various types of dedicated fleet contracts.

the potential risks of measuring truckload transportation costs on a cost-per-mile and cost-per-unit basis.

how to allocate transportation costs, particularly dedicated fleet costs, to individual business units and cost centers.

While the book is written primarily for the benefit of truckload carriers, shippers and related parties will also gain valuable insight into truckload transportation by reading the entire book. While Chapter 15 focuses specifically on shipper issues, it is important that shippers read the entire book to get the maximum benefit from this chapter.

The topics covered throughout the book will provide shippers with a much deeper understanding of the truckload carrier's business model, cost structure, and operating strategy. By having a greater understanding of the needs of their carriers, shippers can become better partners and potentially enjoy improved service and lower transportation costs as a result.

# Truckload Transportation: Economics, Pricing & Analysis

*The Book*

## Sections and Chapters

### Section 1 Introduction to Truckload Transportation

- Chapter 1 Introduction to Truckload Transportation
- Chapter 2 The Trucking Business Model

### Section 2 One-Way Pricing and Network Analysis

- Chapter 3 Introduction to One-Way Pricing
- Chapter 4 Core Concepts in One-Way Pricing
- Chapter 5 Advanced Concepts in One-Way Pricing
- Chapter 6 Network Management and Optimization
- Chapter 7 Operations and Profitability Analysis

### Section 3 Dedicated Fleet Pricing and Design

- Chapter 8 Introduction to Dedicated Fleet Pricing
- Chapter 9 Dedicated Pricing and Cost Forecasting
- Chapter 10 Establishing the Proper Margin for a Dedicated Fleet
- Chapter 11 Special Topics in Dedicated Pricing
- Chapter 12 Semi-Dedicated Pricing and Design

### Section 4 Bid Analysis and Response

- Chapter 13 Bid Analysis and Response
- Chapter 14 Case Studies in Bid Response Analysis

### Section 5 Key Concepts for Shippers

- Chapter 15 Key Concepts for Shippers





# Truckload Transportation: Economics, Pricing & Analysis

*The Book*

## Section 1: Introduction to Truckload Transportation

Section 1 provides a general introduction into the basic financial and operating components of the truckload transportation industry.

These two chapters provide the foundation for the more advanced concepts presented later in the book.

Chapter 1 covers all the key carrier metrics including utilization, empty miles, and revenue per mile. The chapter also includes a detailed timeline and description of a typical driver's daily work activities over a 3-day period.

Chapter 2 covers the basic financial model of a traditional carrier and also explores the financial impact of key operating variables including utilization, loaded revenue per mile, and the empty mile percentage.

### CHAPTER 1

#### Introduction to Truckload Transportation

The Trucking Business Cycle

Types of Trucking Operations

Driver Hours-of-Service Regulations

Carrier Organizational Structure

Mileage and Revenue Types

Truckload Operating Costs

Driver Turnover

Owner-Operators

### CHAPTER 2

#### The Trucking Business Model

Truckload Economics

Operating Ratio

Empty Miles and Net Revenue Per Mile

Activity-Based Costing

Utilization and Cost Per Mile

Length of Haul and Cost Per Mile

Break Even Utilization Analysis

Revenue Per Truck Per Day



# Truckload Transportation: Economics, Pricing & Analysis

*The Book*

## Section 2: One-Way Pricing and Network Analysis

Section 2 covers all the key components of one-way pricing strategy and analysis as well as network profitability analysis.

Chapter 3 introduces the key elements of one-way pricing such as lane definitions, accessorial charges, and fuel surcharges.

Chapters 4 and 5 cover all the critical strategic elements of one-way pricing including cycle time, length of haul, utilization, and capacity and balance.

Chapter 6 focuses on how truckload carriers manage the one-way network in order to maximize utilization and minimize empty miles. Chapter 7 provides a variety of detailed reports for analyzing network performance at the fleet, lane, market and customer levels.

### CHAPTER 3

#### Introduction to One-Way Pricing

### CHAPTER 4

#### Core Concepts in One-Way Pricing

### CHAPTER 5

#### Advanced Concepts in One-Way Pricing

### CHAPTER 6

#### Network Management and Optimization

### CHAPTER 7

#### Operations and Profitability Analysis



# Truckload Transportation: Economics, Pricing & Analysis

*The Book*

## Section 3: Dedicated Fleet Pricing and Design

Section 3 provides highly detailed coverage of all phases of dedicated fleet pricing and design analysis.

Chapter 8 covers the basics of dedicated fleets including example dedicated fleet solutions, the reasons for dedicated fleets, the common dedicated contract structures, and the primary steps in the dedicated pricing and design process.

Chapter 9 introduces a detailed spreadsheet model for dedicated fleet pricing and cost forecasting.

Chapter 10 explains why establishing the margin for a dedicated fleet using only operating ratio is flawed and provides a robust investment analysis method to complement the operating ratio approach.

### CHAPTER 8

#### Introduction to Dedicated Fleet Pricing

### CHAPTER 9

#### Dedicated Pricing and Cost Forecasting

### CHAPTER 10

#### Establishing the Proper Margin for a Dedicated Fleet

### CHAPTER 11

#### Special Topics in Dedicated Pricing

### CHAPTER 12

#### Semi-Dedicated Pricing and Design





# Truckload Transportation: Economics, Pricing & Analysis

*The Book*

## Section 4: Bid Response and Analysis

Section 4 includes two chapters covering all areas of bid response analysis. The section includes four detailed case studies covering a variety of scenarios in bid response analysis and design.

Chapter 13 summarizes the entire bid process from the perspective of both the shipper and the carrier. The chapter covers carrier qualifications, bid summary analysis, bid response analysis, and the bid optimization and lane packaging process.

Chapter 14 includes four detailed case studies in bid response analysis. Each case includes each step in the bid process including preliminary analysis, follow-up questions to the shipper, solution design, pricing design, and the final proposal.

### CHAPTER 13 Bid Analysis and Response

Request for Proposal (RFP) Contents	Carrier RFP Qualifications
Carrier RFP Contents Analysis	Demonstration Bid Analysis
Bid Response Strategies by Carrier Type	Bid Optimization Tools and Strategies
Lane Packaging in Bid Analysis	Formatting Shipment Data in RFPs

### CHAPTER 14 Case Studies in Bid Response Analysis

- Case 1: Traditional One-Way Bid
- Case 2: One-Way Bid with Lane Packaging
- Case 3: Regional Distribution Bid (Semi-Dedicated)
- Case 4: Dedicated Fleet with Fixed-Variable Pricing



# Truckload Transportation: Economics, Pricing & Analysis

*The Book*

## Section 5: Key Concepts for Shippers

Section 5 includes a variety of concepts specifically for shippers including transportation cost analysis, variance analysis, cost allocations, and cost-saving bid design strategies.

Chapter 15 provides a variety of shipper-specific truckload analysis concepts. The chapter includes a detailed analysis of the risks of measuring and benchmarking truckload transportation costs on a cost-per-unit of product basis.

The chapter includes a detailed breakdown of all the variables that affect the shipper's transportation cost. The chapter also includes a detailed approach for allocating the costs of dedicated fleets to individual business units and cost centers.

### CHAPTER 15 Key Concepts for Shippers

- Shipper Transportation Cost Measurements
- Flexible Budgeting and Transportation Cost Variance Analysis
- Allocating Truckload Transportation Costs
- Dedicated Fleets and Marginal Cost Analysis
- Shipper Cost Strategies for Short Haul Pricing
- Diseconomies of Scale in the Truckload Carrier Network
- Volume-based One-Way Pricing
- Outsourcing Private Fleets to Dedicated Carriers



# Truckload Transportation: Economics, Pricing & Analysis

*The Book*

## Technical Tips

Technical Tips are included at the end of several chapters. The tips provide truckload transportation-specific applications of many common spreadsheet and database features.

The technical tips cover many popular spreadsheet topics such as Pivot tables, the “Table” feature, net present value analysis, the vlookup formula, and text functions.

The tips also include advanced topics such as the application of the solver feature to the load assignment problem and advanced network sensitivity analysis using a “Monte Carlo” simulation.

### TECHNICAL TIPS

- CH 3: Vlookup and Hlookup Microsoft Excel® spreadsheet functions
- CH 6: Solver / Linear Programming spreadsheet feature
- CH 7: Basic reporting design in Microsoft Access®
- CH 7: Spreadsheet design for time-based calculations in reports
- CH 10: Net Present Value and Internal Rate of Return spreadsheet setup
- CH 12: Spreadsheet design for Monte Carlo simulation sensitivity analysis
- CH 12: Sensitivity analysis using the “Table” feature in Microsoft Excel®
- CH 13: Using “Pivot Tables” in Microsoft Excel®
- CH 13: Text function tricks and tips for manipulating data in spreadsheets

Two of the technical tips are available for free download at:  
**[TruckloadTransportation.com](http://TruckloadTransportation.com)**

# Truckload Transportation: Economics, Pricing & Analysis

*The Book*

## How to Order

The book is available for purchase online at [www.TruckloadTransportation.com](http://www.TruckloadTransportation.com). All orders are shipped via Priority Mail and delivered in 2 to 3 business days. The book is printed in full color in a high quality, hardback format.

## Questions?

If you have questions about the book, please contact Leo Lazarus at:

Email: [leo.lazarus@truckloadtransportation.com](mailto:leo.lazarus@truckloadtransportation.com)

Phone: (901) 299-1198





# Truckload Transportation: Economics, Pricing & Analysis

*The Book*

## Spreadsheet Models

To support the analysis information and models presented in the book, we also offer a variety of customized spreadsheet solutions for actual carrier use. The spreadsheet offerings include each model that is presented in detail in the book.

Available spreadsheet models include:

### **Dedicated Pricing Model Based on Net Present Value and Internal Rate of Return:**

This full spreadsheet model contains everything needed to begin utilizing an investment-based approach to dedicated pricing. Before use, the model must be populated with the carrier's operating cost assumptions and related information. The book provides detailed instructions on the use of this model. Additional training and setup support is also available.

### **Short Haul / Mileage Band Dedicated Fleet Size Model:**

This spreadsheet includes the short haul / mileage band fleet size and utilization model as well as the dedicated fleet cost to one-way pricing conversion model. The model provides the basic format and formulas for each model. The end user will be required to manipulate the basic model slightly for each pricing and design exercise. Additional training and setup support is also available.

### **Truckload Transportation Toolkit:**

This suite of simple spreadsheet tools includes models for many common trucking applications. Modules include spreadsheet text management tricks, pivot table design, sensitivity analysis using the “Table” feature, spreadsheet design for time-based calculations, the “Solver” spreadsheet feature, the “Vlookup” and “Hlookup” spreadsheet functions, and several other advanced applications.