



Decision Making

*for Outsourcing and
Privatization of Vehicle
and Equipment Fleet
Maintenance*

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PREFACE

The outsourcing and/or privatization vehicle and equipment fleet maintenance has been a concern of many agencies and, over the years, has resulted in a variety of applications and outcomes of these endeavors.

As a result, NCHRP Project 13-03 and Project 13-03A were funded to develop a recommended set of guidelines for making decisions on outsourcing and privatization of vehicle and equipment fleet maintenance. The basic results of the studies have been reviewed and the recommended process has been approved by AASHTO for consideration as a guide for use by the member departments.

TABLE OF CONTENTS

1.0 INTRODUCTION	1-1
1.1 Study Context	1-1
1.2 Study Scope and Objectives	1-2
1.3 Purpose and Organization of This Report	1-3
2.0 BACKGROUND	2-1
2.1 Characteristics of State DOT Vehicle and Equipment Fleets	2-1
2.2 Challenges for Outsourcing Fleet Maintenance Operations	2-2
2.3 Applicable Forms of Fleet Maintenance Outsourcing	2-4
3.0 SCOPE OF THE OUTSOURCING DECISION FRAMEWORK	3-1
3.1 Purpose and Goal	3-1
3.2 Outsourcing Decision Framework Requirements	3-1
3.3 Key Factors to Be Considered	3-2
3.4 Implementation of the Framework	3-3
4.0 FLEET OUTSOURCING DECISION FRAMEWORK	4-1
4.1 Equipment Class	4-1
4.2 Maintenance Types	4-2
4.3 Outsourcing Decision Variables	4-3
4.4 Performance Measurement	4-4
4.4.1 Data or Information to Manage Fleet and Equipment Maintenance Performance	4-4
4.4.2 Key Performance Indicators or Metrics to Monitor Performance	4-5
4.4.3 Benchmarking to Gauge Performance	4-6
4.5 Modeling a Full Range of Outsourcing Alternatives	4-6
4.6 High-Level Decision-Making Process	4-7
4.7 Outsourcing Decision Subprocesses	4-8
4.7.1 Process 1: Identify Critical Internal and External Conditions	4-8
4.7.2 Process 2: Analyze Internal Demand and Capabilities	4-12
4.7.3 Process 3: Evaluate External Service Providers	4-16
4.7.4 Process 4: Analyze Cost and Performance Trade-Offs	4-18
4.7.5 Process 5: Synthesize and Finalize Outsourcing Decisions	4-26

5.0 CASE STUDIES	5-1
5.1 Case Study Context	5-2
5.2 Case Study A—Strategic Outsourcing Decision	5-3
5.2.1 Process 1: Identify Critical Internal and External Conditions	5-3
5.2.2 Process 2: Analyze Internal Demand and Capabilities	5-6
5.2.3 Process 3: Evaluate External Service Providers	5-10
5.2.4 Process 4: Analyze Cost and Performance Trade-Offs	5-11
5.2.5 Process 5: Synthesize and Finalize Outsourcing Decisions	5-15
5.3 Case Study B—Day-to-Day Outsourcing Scenario	5-15
5.3.1 Process 1: Identify Critical Internal and External Conditions	5-16
5.3.2 Process 2: Analyze Internal Demand and Capabilities	5-16
5.3.3 Process 3: Evaluate External Service Providers	5-17
5.3.4 Process 4: Analyze Cost and Performance Trade-Offs	5-17
5.3.5 Process 5: Synthesize and Finalize Outsourcing Decisions	5-18
 6.0 CONCLUSION	 6-1
 REFERENCES	 R-1
 APPENDICES	 A-1
Appendix A—Summary of Outsourcing Model and Process Steps	A-1
Appendix B—Forms and Templates	B-1

SUMMARY

Decision Making for Outsourcing and Privatization of Vehicle and Equipment Fleet Maintenance

Outsourcing is a key component of the state department of transportation's (DOT's) strategy for delivering services. *NCHRP Synthesis of Highway Practice 313: State DOT Outsourcing and Private-Sector Utilization* documented that either the legislative or executive branches of state government can mandate outsourcing directly, although more commonly they act to limit or reduce the number of state employees, resulting in a de facto mandate to outsource. Not surprisingly, the most common reasons cited for outsourcing were lack of sufficient staff or improper combination of skills. These reasons were followed by cost cutting and/or improved service quality.

The decision to outsource is not an easy one, and how the outsourcing decisions are made is of great interest to state DOTs. While several best-practice outsourcing models are available in the private sector, caution should be exercised while translating those models directly for use in the public sector. The profit and business development considerations in the private sector should be balanced against the legal, economic, public service, and political mandates of government. Also, a variety of factors should be considered in the decision process, such as the criticality of the outsourcing candidates to the organization's mission and goals, availability of third-party vendors, cost, and service quality. Outsourcing public-sector fleet and equipment maintenance offers certain unique challenges that require such decisions to address additional and more complicated considerations.

This report presents a practical, logical, and transparent framework for conducting systematic analysis and making decisions on outsourcing and privatization of vehicle and equipment fleet maintenance. The framework was designed to be flexible and scalable to address a full range of outsourcing decision alternatives, from outsourcing a single type of service for single vehicles on case-by-case and day-to-day bases at specific locations to outsourcing some or all maintenance services at some or all locations, for some or all fleet segments in the enterprise.

A commonly adaptable typology of equipment and maintenance types was defined to ensure that the framework is widely acceptable and adaptable across diverse fleet assets and maintenance services. A core three-dimensional decision variable was also defined to serve as a common basis to evaluate virtually all possible outsourcing alternatives. Commonly used performance indicators or metrics in the fleet management industry are suggested herein to assist in consistent evaluation of insourced and outsourced service performance.

The core process model is presented as a step-by-step (structured) logic process that focuses on the unique needs of the state DOT's fleet maintenance and business environment. There are five processes in the model (see Figure 1).

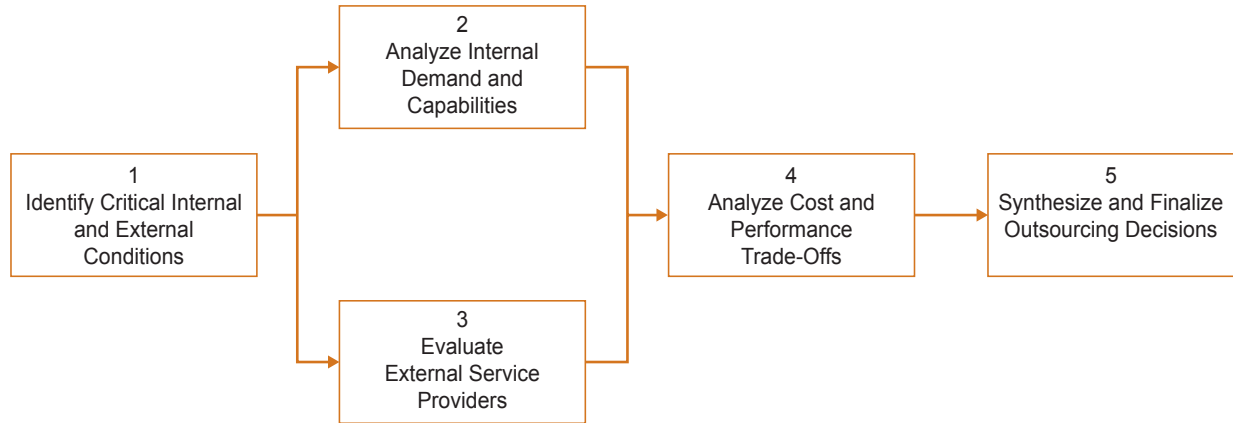


Figure 1. High-level outsourcing decision process

The process steps and their sequences represent key checkpoints and logical information and decision flows in arriving at the final outsourcing and insourcing decisions. The actual execution of the process model is highly flexible, depending on the context of the outsourcing decisions such as the scopes of the outsourcing decisions and how often the outsourcing decisions need to be reviewed and updated. This report also presents two case study examples that demonstrate the practical application of the decision framework.

The report details each step in the high-level logic model via processes and discussions of the rationale and suggested typologies that can be applied or tailored to the user.

The decision logic model detailed in this report is intended to help ensure a thorough and considered decision-making approach. Fleet management agencies may at any time have already thoroughly addressed or leap-frogged certain steps in the logic and may want to adapt the decision process to existing knowledge or policy. The logic model is not intended to be overly prescriptive; rather, it is meant to assist in comprehensive and balanced evaluation of outsourcing decisions.

I.0 INTRODUCTION

I.1 Study Context

Privatization has been a subject of interest for the public and private sectors since the concept gained wider acceptance in the 1970s. Outsourcing is considered a form of privatization in which the service delivery is contracted to an external private vendor, while the sponsor retains oversight and control over delivery. Public- and private-sector organizations have embraced outsourcing because of benefits, such as lower costs and better quality. The market for outsourced services has increased over time, with firms offering services ranging from specialty to comprehensive. The private sector has grown tremendously from outsourcing because it offers better-quality services at a lower cost than performing the job in-house. This enables private firms to focus on their core products, which helps them to gain competitive advantage and venture into new directions that improve their market position over their competitors. However, the public sector has had mixed success with outsourcing. Although the scope of government outsourcing has expanded from simple to more stylized services, the challenges public managers face to maintain effective and efficient service delivery have increased, sometimes resulting in substandard levels of service quality (1). Others have had success gaining the intended benefits of outsourcing.

The overall growth in state highway programs and the lack of growth in department of transportation (DOT) staff have resulted in the need for state DOTs to rely more on the private sector to deliver services (2). *NCHRP Synthesis of Highway Practice 313: State DOT Outsourcing and Private-Sector Utilization* (2) found that state DOTs outsource highway-related activities in the areas of administration, construction, design, maintenance, operations, planning, and right-of-way. The study found that the majority of DOTs reported outsourcing activities that grew or remained the same over a five-year period and projected an increase in outsourcing levels in the near future. The most common reasons cited for outsourcing were lack of sufficient staff and the right combination of skills. DOTs infrequently cited cost-effectiveness as the reason for outsourcing.

In the public-sector realm, not all activities are appropriate or even eligible for outsourcing. Outsourcing cannot be the cure-all for all cost- and performance-related issues (3). It is usually inappropriate or unacceptable to outsource certain services that are inherently governmental, such as law enforcement, policy making, and public safety. In such cases, the risk of contractor failure outweighs the benefits of outsourcing. In the early 1990s, the City of Indianapolis clearly distinguished the potential outsourcing candidates between policy-making and policy-implementing functions. The city decided that only the latter should be eligible for private-sector bidding (4).

In the area of fleet maintenance, many public agencies already outsource the fleet and equipment maintenance work. Resource limitations, staff shortage, and lack of specific skills are the most commonly cited reasons for outsourcing. Many municipalities, such as the cities of Indianapolis, Charlotte, and Winston-Salem, have resorted to managed competition, whereas the City of Pittsburgh has turned to privatization for improvements. Many state DOTs, such as

those of Massachusetts, Virginia, Texas, and Missouri, have outsourced certain maintenance functions and have had varying levels of success.

The decision to outsource is not an easy one. The organization has to answer a variety of questions about the criticality of the outsourcing candidates to the organization's mission and goals, availability of third-party vendors, cost, and service quality, to name a few. A variety of successful case studies, practices, and decision models are available and applied in the private sector to evaluate outsourcing decisions. However, caution should be exercised in translating these models for use in the public sector. When considering outsourcing strategies, the profit and business development motives of most private-sector organizations need to be balanced against the legal, economic, public service, and political mandates of government.

Currently, there is no widely accepted general process for evaluating and deciding on the various options for outsourcing fleet maintenance. This project aims to bridge this gap to develop a logical framework for making outsourcing decisions with due consideration to the key factors that drive them. Public agencies involved in maintenance of nonrevenue vehicle and equipment fleets will be the primary users of this decision framework.

1.2 Study Scope and Objectives

The most common reasons cited for outsourcing and/or privatization by state DOTs are cost-cutting, improved service quality, lack of resources, and lack of specific skills or expertise. The resources freed up through outsourcing and/or privatization may be diverted to other critical activities within the DOT. In a competitive environment, the profit motive and the opportunity to secure future contracts are sufficient motivation for the private-sector vendors to maximize performance, improve efficiency, and deliver quality service in a cost-effective manner. Vehicle and equipment maintenance are among the services that are typically not considered core or mission-critical, and are ideal candidates for further evaluation.

Because of growing demands and resource limitations on vehicle and equipment fleet maintenance, state DOTs often consider the outsourcing and/or privatization of these services. However, these decisions largely depend on fleet size, vehicle mix, and equipment type, and are influenced by cost-effectiveness, timeliness, and external market conditions. Also, state DOTs can implement outsourcing and privatization in a variety of forms with different levels of agency involvement, such as outsourcing statewide or regional activities and selected outsourcing of specific activities, and with different levels of responsibility for quality control and assurance. Currently, there is no widely accepted process for evaluating the alternatives for outsourcing vehicle and equipment fleet maintenance.

NCHRP Project 13-03A was intended to develop a logical and systematic decision-making framework and process to address the various plausible scenarios in which fleet maintenance outsourcing and privatization decisions should be considered. The resulting decision framework and process addresses the following:

- Various levels, scopes, and scenarios of outsourcing and privatization,
- Performance and quality assurance issues,
- Level of agency involvement and/or delegation,
- Various fleet compositions and existing resources,
- Local and regional operating imperatives,

- Procurement policy and rules extant, and
- Local and regional service markets.

I.3 Purpose and Organization of This Report

The purpose of this report is to present the outsourcing decision-making framework for state DOT fleet outsourcing. The report is organized into the following chapters:

- **Chapter 1: Introduction**—Describes the study context, project scope, and report organization.
- **Chapter 2: Background**—Provides background on typical characteristics of state DOT fleet and equipment, challenges of outsourcing state DOT fleet-maintenance operations, and definitions of key terms.
- **Chapter 3: Scope of Outsourcing Decision Framework**—Identifies and lists specific requirements regarding the outsourcing decision-making process.
- **Chapter 4: Fleet Outsourcing Decision Framework**—Introduces the three-dimensional outsourcing decision framework that considers equipment class, maintenance service type, and organizational unit, and how it can be applied to capture a full range of fleet outsourcing alternatives. Defines a decision process model for key process phases, process activities, decision points, and relevant evaluation criteria, along with a logical sequence in arriving at various outsourcing decisions.
- **Chapter 5: Case Studies**—Illustrates the practical application of the fleet outsourcing decision framework using case studies.
- **Chapter 6: Conclusion**—Summarizes the report.
- **References**—Presents the references for the report.
- **Appendix A: Summary of Outsourcing Model and Process Steps**—Presents all of the subprocesses in one chart, and lists the inputs and outputs for each step.
- **Appendix B: Forms and Templates**—Presents the forms and templates to support the outsourcing analysis.