Evaluation of Transportation Organization Outsourcing: Decision Making Criteria for Outsourcing Opportunities

Project 01 – 03
October 2002

Midwest Regional University Transportation Center
College of Engineering
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EXHIBIT B

Technical Report Documentation Page

1. Report No.	2. Government Accession No.	3. Recipient's Catalog No. **CFDA 20.701**	
4. Title and Subtitle **Evaluation of Transportation Organization Outsourcing: Decision Making Criteria for Outsourcing Opportunities**		5. Report Date **October 31, 2002** 6. Performing Organization Code	
7. Author/s Robert J. Eger III, Deborah A. Knudson, Justin Marlowe, Libby Ogard		8. Performing Organization Report No. **MRUTC 01-03 (2002)**	
9. Performing Organization Name and Address **University of Wisconsin-Milwaukee Department of Political Science P.O. Box 413, Bolton Hall 674 Milwaukee, WI 53201**		10. Work Unit No. (TRAIS) 11. Contract or Grant No. **DTRS 99-G-0005**	
12. Sponsoring Organization Name and Address **U.S. Department of Transportation Research and Special Programs Administration 400 7th Street, SW Washington, DC 20590-0001**		13. Type of Report and Period Covered **Final Report [July 2001-October 2002]** 14. Sponsoring Agency Code	
15. Supplementary Notes **Project completed for the Midwest Regional University Transportation Center, at the University of Wisconsin-Madison with support from the Wisconsin Department of Transportation.**			
16. Abstract This study has primarily two objectives. First, using a series of case studies and survey research, it provides a comprehensive overview of transportation outsourcing practices in a variety of public and private sector organizations. The results of these case studies show that public sector organizations, particularly state departments of transportation, identify many of the same costs, benefits, challenges, and risks associated with outsourcing as their private sector counterparts. In light of these findings, this study then translates the private sector's extensive outsourcing experience into a "scorecard" designed to serve as a decision making tool for administrators to identify services that have the potential for successful outsourcing.			
17. Key Words **Outsourcing, Asset Management, Decision Making, Resource Allocation, Contracting, Business Practices**	18. Distribution Statement **No restrictions. This report is available through the Transportation Research Information Services of the National Transportation Library.**		
19. Security Classification (of this report) **Unclassified**	20. Security Classification (of this page) **Unclassified**	21. No. Of Pages **87**	22. Price **-0-**

Form DOT F 1700.7 (8-72) Reproduction of form and completed page is authorized.

TABLE OF CONTENTS

EXECUTIVE SUMMARY

■ Project Summary

This study has primarily two objectives. First, using a series of case studies and survey research, it provides a comprehensive overview of transportation outsourcing practices in a variety of public and private sector organizations. The results of these case studies show that public sector organizations, particularly state departments of transportation, identify many of the same costs, benefits, challenges, and risks associated with outsourcing as their private sector counterparts. In light of these findings, this study then translates the private sector's extensive outsourcing experience into a "scorecard" designed to serve as a decision making tool for administrators to identify services that have the potential for successful outsourcing.

■ Background

Why Outsource?

Successful outsourcing has been demonstrated to provide organizations with a number of benefits, most of which result from improved efficiency. Through the emphasis of "essential" or "core" functions, an organization is able to streamline its operations by maintaining only those resources considered essential to its mission or business model. Undoubtedly, intra-organizational or "non-core" functions such as information technology, equipment maintenance, custodial services, and others are critical to effective and consistent operations. But to date, the private sector experience has shown that specialized third party contractors are typically able to deliver such services with comparable or better quality, and often at lower costs, than in-house providers. Because of the streamlining it facilitates, effective outsourcing also allows firms to expand their market share, pursue new strategic directions, and improve overall competitive advantage. As a result, organizations in both the private and public sector have several incentives to explore their outsourcing options.

To date, public sector outsourcing has earned a mixed record of success, failure, praise, and criticism. Although it began with small-scale, easily monitored services such as trash and leaf collection, governments have recently attempted to outsource more stylized services such as mental health care, job training, Medicare and Medicaid, and the focus of this study, transportation logistics. As the breadth, and complexity of government outsourcing has expanded to include these sorts of services, so too have the challenges public managers face in maintaining effective and efficient service delivery. In some cases, those challenges have been tremendous, and have led to what many consider to be substandard levels of service quality. In others, outsourcing has provided governments with tremendous costs savings and service quality improvement. These and other broad issues are described in more detail in the Literature Review section of this report.

The current limited literature, as well as the results of this study, shows that state departments of transportation have neither succeeded nor failed in their efforts to outsource transportation services. Rather, it is apparent that institutional issues surrounding the outsourcing decision process and concerns relating to the outsourcing results influence the implementation of widespread outsourcing.

Despite their unique characteristics, the study results show that departments of transportation and private sector manufacturers have very similar transportation outsourcing needs. Both maintain large information networks, growing vendor bases, complex equipment inventories, unique fleet maintenance needs, intricate workflows, intensive information reporting, shrinking work forces, and many other similar demands that require effective and efficient service provision. Therefore, this study offers a number of lessons learned from the private sector to assist departments of transportation with regard to these key challenges.

The Importance of Core Competency Assessment

Assessing government core competency is often an ambiguous process. The scope of government services, as well as the complex interactions among agencies at all three levels of government, makes it challenging to identify an articulated government strategy, competency, or mission. Some might argue that government exists solely to provide unemployment benefits, income assistance, national defense, interstate highways, and other services that are too complex or costly to be provided by the private sector. As a result, assessing governments' "non-core" functions is a demanding task.

At the same time, many of the manufacturing firms interviewed for this study manage that same ambiguity and complexity when identifying their own core competencies. Like governments, many manufacturers have developed tremendously complex infrastructure networks, subsidiary firms, and auxiliary services necessary to provide consistent services to suppliers and customers. When faced with the prospect of outsourcing, firms managing this complexity must grapple with many of the same challenges in assessing core competencies as their government counterparts.

The Importance of Managing the Outsourcing Relationship

Given their inherent emphasis on accountability and oversight, governments appear to have gravitated toward a "performance contract" approach rather than the "outsourcing relationship management" approach that is known to be private sector best practice. Unlike the private sector, where diminished service quality may impact investor profits, diminished quality of garbage collection, road maintenance, job training, or other commonly outsourced public services may significantly impact overall quality of life. For this reason, public sector agencies have promulgated well-defined service outputs, quality indicators, oversight boards, and other features designed to ensure that "the public gets what it pays for" when outsourcing occurs. In some cases, oversight itself has been outsourced, as many governments have hired professional oversight firms to monitor other outsourcing contracts. This emphasis on contract or "principal-agent" type relationships has in most cases produced its desired predictability, stability, and accountability. However, the need for oversight and the costs that accompany it have often negated the costs savings generated by outsourcing.

The manufacturing firms and third party service providers interviewed for this study describe a very different approach to outsourcing management. That is, rather than viewing outsourcing arrangements as strict, output-driven, oversight-laden, quid pro quo contract arrangements, the private sector firms describe their outsourcing arrangements as dynamic, fluid, negotiated, mutually dependent, and continuous relationships often supplemented by performance incentives and flexible monitoring. The results, according to the private sector, are mutually managed relationships that are effective because they contain elements of trust and flexibility. These sorts of relationships, according to the private sector, are critical to outsourcing success. The difficulty in moving the public sector away from a performance contracting perspective and toward an outsourcing relationship is obvious.

■ Process

As part of this study, interviews and surveys were conducted to assess individual and organizational perspectives on key aspects of the outsourcing process in manufacturing firms, third party service providers, and state departments of transportation divisions. The manufacturers and third party service providers were chosen first because of their reputations as effective outsourcers, and also because of their similarities to state departments of transportation divisions in terms of overall size and service demands. A total of five manufacturing firms and two third party service providers took part in the study. The state departments of transportation were all cold weather states with characteristics similar to the Region V states of Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin. A total of 66 surveys were sent to State Department of Transportation Secretaries/Commissioners, Deputy Secretaries/Commissioners, Chief Highway Engineers, and Division Directors. The state departments of transportation surveyed included: Connecticut, Illinois, Indiana, Iowa, Kansas, Maine, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, New Hampshire, New Jersey, New York, North Dakota, Ohio, Pennsylvania, Rhode Island, South Dakota, Vermont, Virginia, Wisconsin.

After some preliminary interviews and informal data collection, separate survey questionnaires were developed for each of the three groups. Although the questionnaires were formatted roughly the same, containing multiple choice, required ranking attributes, and open-ended question, each dealt with the unique outsourcing issues within each of the three types of organizations. The manufacturer survey gathered information about manufacturers' outsourcing goals and objectives, information requirements and collection issues during the outsourcing process, planning processes, and program development and implementation of outsourcing programs. The third party logistics provider survey explored the provider's perspectives on outsourcing issues and practices identified by manufacturers, as well as their perspectives on doing business with government entities. The department of transportation questionnaire contained questions focusing on organization size, scope, goals, and information as well as outsourcing plans and programs. Specific information about these organizations, as well as the actual questionnaires and responses, can be found in the Template for Case Studies section and the Appendices, respectively.

■ Comparative Survey Findings

What services are commonly outsourced, and what prevents broader public sector transportation outsourcing?

- The most commonly outsourced services are information technology, asset maintenance, material distribution, warehousing, and fleet management.

- Since 13 of the transportation division respondents indicated no participation in outsourcing, all transportation division respondents were asked about the characteristics and processes that facilitated or impeded outsourcing. According to them, the primary barriers to outsourcing are labor agreements followed by government regulations.

- Since little is known about the results of assimilating private sector objectives into those of the public sector, the responding groups were asked to provide the top three risks to outsourcing. Both public and private sector organizations often cited the potential for diminished service quality as a risk. However, the groups differed between the risks of cost and product control. The risks associated with cost containment are seen as one of

the top three risks to outsourcing for 19 of the 28 transportation division respondents, while only 1 out of 5 manufacturers noted this as an important risk.

How are outsourcing options evaluated?

- Departments of transportation divisions generally do not use experts to assist in the outsourcing decision.

- With respect to benchmarking, little difference is found between the public and private sectors. Among those groups that utilize benchmarking, past outsourcing experiences are the most commonly used benchmark. This indicates that institutional history plays a critical role in the decision making process.

- Manufacturer, transportation division, and 3PL respondents are similar in many respects when instituting the outsourcing decision. The groups are similar in current outsourcing activities, barriers, and risks associated with outsourcing. In addition, the groups exhibit minimal differences in using expert assistance and rely on institutional history to guide their benchmarks.

- Costs and determining service needs are common themes among the three groups. In addition, transportation division respondents distinctively focused on specific information such as provider capacity and qualifications and the availability of in-house expertise.

- When the transportation division respondents were asked whether or not access to information had improved as a result of outsourcing, about 57% indicated that access had improved over time. This improvement helped the decision to outsource and the analysis of outsourcing's impact. In addition, both the manufacturer and 3PL respondents indicated that electronic collection and analysis improved, and increased electronic integration has changed the information and data collection processes. Thus, the responses from all three groups were complementary.

How are outsourcing contracts negotiated and monitored?

- An essential aspect in the decision to outsource or to be a provider of outsourcing is the development of the relationship between the outsourcer and the provider. The factors that influence the decision to outsource are important for providing the groundwork for developing an outsourcing relationship and scorecard themes. The transportation division respondents were different from the other two groups with respect to the factors influencing provider selection only in choosing strategic direction as an important factor.[1]

- Both the transportation division and manufacturing respondents rated business qualifications of the provider as the most important factor influencing the outsourcing decision. In addition, cost was an important influencing factor for the transportation division respondents. This finding coincides with the transportation division respondents' ranking cost information high on the list of informational needs to begin outsourcing.

[1] Using Analysis of Variance (ANOVA) to determine the differences in mean responses between the three groups, strategic direction was the only factor that was statistically significant with a probability value less than 5%. All other factors were not statistically significant using the probability value of 5%.

- Other factors that influence the outsourcing decision are quality, reputation, and operational excellence. Manufacturing respondents ranked financial stability, operational excellence, cost, and quality as equivocally the second most important factors in selecting a provider. Although operational excellence, cost, and quality rank similarly with transportation division respondents, financial stability is not as highly ranked. Instead, state transportation respondents weight reputation as one of the most important factors influencing provider selection.

- Other essential components for the outsourcing decision making process include establishing policies and procedures and performance incentives. The transportation division respondents overwhelmingly use existing policies and procedures, which provides another clear indication of the value of the public institution's history. Transportation division respondents cited unique policy development only 15% of the time, while manufacturers and 3PLs most often developed unique policies and procedures to meet the needs of the particular outsourcing venture.

- All manufacturing respondents offer providers gain sharing at least sometimes, while monetary awards are offered by the transportation division respondents 52% of the time. By contrast, future contract preference or more business is offered less than 50% of the time by state transportation respondents. These differences between the transportation division respondents and the manufacturing respondents appear to be a function of the institutional setting, including the limitations placed on state transportation departments with respect to monetary rewards.

- One key focus of outsourcing is the timing of performance measures. Provider's performance was measured from as often as weekly to as stark as at the end of the project. The majority of state transportation respondents identified weekly and monthly as the most common performance measurement timing. This finding is consistent with the manufacturing respondents; however, manufacturing respondents identified a custom tailored approach to the timeliness of performance measurement. This approach includes continuous and daily assessment in addition to the weekly and monthly assessments depending on what aspect of performance is being measured. Overall, manufacturing respondents emphasize the necessity of continuous and consistent performance measurement, especially when faced with exceptions to standard company practice.

■ Policy Options/Scorecard

The observations included in this study provide for the development of a decision making scorecard, which combines lessons learned from previous work by AASHTO and TRB.

- First and foremost, the decision to outsource must incorporate a change in the treatment of the traditional performance contract relationship. This change must include the degree to which the contractual relationship continuum flows. Simply put, successful outsourcing appears to be predicated on a relationship, not a contract.

- Giving consideration to the private sector interviewees, the second important aspect to successful outsourcing is the identification of the organization's core competencies. By identifying core competencies, the organization can evaluate the non-core services that are currently provided but have the potential for outsourcing. Non-core services

constitute those which the organization feels are necessary to be provided on a continual basis, but do not necessarily need to be provided by the organization itself.

- One aspect of this project is the importance of goals and objectives. The outsourcing relationship cannot begin without a set of measurable objective criteria. This includes a consideration of the question of what the impact of non-achievement will be.

- Evaluating the availability of third party service providers is a key to the decision making process. Capability and quality are critical aspects of this evaluation.

Given the information gathered in this project, the following set of recommendations are proposed for state transportation officials:

1. Pay particular attention to the institutional setting in which the outsourcing is taking place. Will this decision negatively impact the department of transportation by assigning a core competency to the private sector? Incorporate these issues into the decision making process.

2. The decision to outsource incorporates a series of risks. These need to be carefully assessed.

3. Measuring provider performance can potentially be a point of contention for the outsourcing relationship. Objective measures need to be mutually established with opportunities for modification as the need arises.

4. Although quality was identified as a concern and a friction point, the actual quality of services were found to be equivalent or higher than the work performed by the state. This finding indicates that departments of transportation should place less emphasis on quality as a constraint to the outsourcing decision.

5. Relationship management is critical for successful outsourcing. Departments of transportation need to adopt a new perspective on outsourcing, from one of performance contracting to one that considers outsourcing as a long-term relationship.

6. The outsourcing decision cannot be rushed. Open mindedness, accuracy, and thoroughness are far more important to the outsourcing decision than swiftness.

Introduction

■ Study Purpose

Private industry has extensive experience with outsourcing functions that fall outside of the firm's core competence. Outsourcing and privatization are national business trends that are becoming increasingly relevant to public-sector managers. Several jurisdictions in areas similar to the upper Midwest have successfully established competitive outsource operations. A number of private sector transportation companies have adeptly implemented outsourcing programs that may act as models for public agencies.

Although the privatization of publicly provided services continues to be a fiercely debated issue, outsourcing challenges facing the public sector have similarities to private sector challenges. Every state Department of Transportation (DOT) has their own physical and geographic constraints, unique organizational structure, diverse political environment, and constituents needs. Subsequently, each has established goals, objectives, standards, and priorities for managing their physical assets and processes. However, DOT outsourcing needs have similar characteristics to those in the private sector. These include, but are not limited to:

Large information networks
Expanding vendor base
Complex inventory of equipment
Maintenance functions specific to unique fleets of equipment
Intricate workflows
Intensive Information reporting
Shrinking work forces
Shorten turn around times
Smaller budgets
More customization
Unique customer demands

The purpose of this project is to survey best practice outsourcing examples in private sector transportation companies, establish an outsource decision-making scorecard, and survey a random group of public sector transportation agencies. The results of this study will inform transportation officials of criteria to consider when evaluating outsourcing opportunities, concerns to be evaluated, and other factors that might influence a decision.

■ Study Design and Organization

The research design associated with this project focuses on four principle efforts. These efforts are as follows:

- Provide a literature review relative to outsourcing decisions, assessing core competencies, choosing an outsourcing provider, and examples of best practices.

- Develop a case study template that includes establishing criteria for selecting case studies, developing protocols for obtaining information, and documenting the outsource process and the supporting organizational structure.

- Conduct interviews of private sector manufacturing companies, third party service providers and state departments of transportation to assess outsourcing activities from the perspective of each organization.

- Compare the outsourcing perspectives of state departments of transportation to private sector organizations, and establish recommendations on potential areas for public sector outsourcing.

The following report provides a detailed description of each step of the study. Chapter two provides a review of the literature relevant to the study and analysis of outsourcing. Chapter three provides the template for case studies, which describes the survey instrument for each of the three groups surveyed for this report. Chapter four provides case study descriptions and detailed information on the survey responses of all manufacturing companies, third party service providers and state departments of transportation that responded to the survey. Chapter five provides a comparison of the findings between each of the three groups surveyed and derives a outsourcing decision making scorecard. Finally, chapter six provides conclusions and recommendations for state departments of transportation considering outsourcing.

Literature Review

■ Introduction

Given its proven record of success in many different contexts, outsourcing has become something of a mantra in modern public management. Since the arrival of *Reinventing Government* and other works emphasizing "entrepreneurial" government, outsourcing has grown tremendously popular as a means of reducing costs, increasing efficiency, and improving overall quality of service in public sector organizations.[2] Throughout the development of this new perspective, we have learned a great deal from observing private sector outsourcing practices.

The existing work on the private sector outsourcing practices and their applicability within the public sector has provided a number of important suggestions, precautions, case studies, and even some extensive models to guide the outsourcing decision-making process. The first section of this review describes the decision to outsource and the literature that has addressed this initial step in the process. In fact, it has become quite clear that the decision to outsource is actually arrived at by answering a number of important questions about an organization's core competencies and policy goals, coupled with the availability of service providers, contract negotiations, and other considerations. The private sector's "best practices" in this regard are then contrasted with the legal, economic, and political considerations that must be made when applying these lessons to the public sector. Although the policy issue at hand centers on transportation, a number of important lessons have been learned in other policy areas, and those lessons are also included here.

The second section then considers the transition to outsourcing, specifically the process of choosing a third-party provider once the firm has decided to outsource. Again, the private sector has provided a number of criteria, and in some cases, full decision-making models to guide this process. A number of important related considerations with regard to contractual issues, labor agreements, and other management issues are also considered here. The final section highlights the methods by which both private and public sector firms conduct analysis and evaluation of existing outsourcing agreements. Again, the uniquely public aspects of this process are considered.

■ The Decision to Outsource

This section begins by describing considerations private sector firms have identified as critical in the early stages of the transportation outsourcing decision, particularly the process of identifying core competencies. It then highlights many of the precautions that should be taken in crafting exclusively public sector outsourcing relationships, especially with regard to goal setting and risk exposure. Although very little work has been done specifically regarding public sector functions that have the potential to be outsourced, public administration researchers have put forth many important lessons learned from research on

[2] David Osborne and Ted Gaebler (1993), *Reinventing Government: How the Entrepreneurial Spirit is Transforming the Public Sector*, New York: Penguin Books; see also David Osborne and Peter Plasterik (1997), *Banishing Bureaucracy: The Five Strategies for Reinventing Government*, New York: Addison-Wesley and Michael Barzelay and Babak J. Armajani (1992), *Breaking Through Bureaucracy: A New Vision for Managing in Government*, Los Angeles: UCLA Press.

outsourcing experiences with health laboratory services, human resources, and information technology in public agencies.

Assessing Core Competencies

Most outsourcing decisions begin with an assessment of the role that the function in question plays in advancing the firm's core competencies, functions, or mission. The underlying logic is simple – any function the organization performs that is not essential to its mission, can, in theory, be outsourced. However, assessing a firm's core competencies is often an ambiguous and difficult task. In response to that challenge, current research on this phase of decision-making *recommends that firms simultaneously consider the functions that may benefit from outsourcing in conjunction with the core competencies of third parties that could potentially provide outsourced services.* Again, the logic is simple – unless a qualified provider can be identified for a specific function, there may be no value added in considering an outsourcing plan for that function. Goldsmith's 1989 piece provided one of the first series of questions any firm should answer in this regard.[3]

- What are the company's most significant considerations: Competitive position? Bottom-line cost? Inventory control?

- Do we have adequate manpower for these functions? Do we have a knowledgeable staff, enough support, and third party help?

- Have we made current cost-benefit analysis of internal staffing versus outsourcing to accomplish our goals?

Using this sort of analysis, the initial task for management in assessing outsourcing needs is to identify areas where the firm can match its needs with the essential competencies of potential third-party providers. Copacino presents a similar framework to help managers assess the impact outsourcing may have on operations at the strategic, structural, functional, and implementational levels.[4] According to his framework, an outsourcing plan must include:

- An accurate definition of customer service
- Some knowledge on competitors
- Institutional flexibility to incorporate a speedy response to future needs of the existing or new customers

Thus, works of this sort clearly indicate the importance of identifying and connecting core competencies when making the decision to outsource.

Without a doubt, core competency assessment in the public sector is more ambiguous, and as a result, more difficult to execute. However, attempts have been made, in policy areas outside of transportation, to provide managers with a model for this sort of analysis. A recent piece by Siegel, which addresses outsourcing of public personnel functions, provides a model

[3] M. Goldsmith (1989), "Outsourcing Plays a Role in Corporate Strategies," *Transportation & Distribution* (October): 18-22.
[4] W.C. Copacino (1994), "A Rediscovered Opportunity," *Traffic Management* (November): 39-45.

for assessing public agency core competencies.[5] This four-phase model begins by examining the delivery modes available for the services being considered for outsourcing. He outlines a total of nine potential modes, each incorporating a different mix of centralization and competition between in-house, private sector, and intergovernmental service providers. Once modes of delivery are agreed upon, Siegel recommends an agency consider the availability of private sector or intergovernmental vendors, restraints on service supply, contractor reputations, regulatory legislation, and other factors as part of the decision to outsource. The model then calls for a procedural analysis of the service to be outsourced in order to seek and assign an appropriate vendor for the service. Also critical are evaluation and monitoring concerns.

Since private firms are driven by the profit motive, and often by a clear business plan or mission statement, the incentive to outsource flows directly from the efficiency gains and increased profits that occur as a result of task specialization, economies of scale, refined scope of mission, and other advantages realized through an outsourcing plan. However, in the absence of a "bottom line" in public sector agencies, a number of other motives substitute for efficiency and cost-savings. According to Prager:

> "Contracting out government services, in short, will neither reduce government outlays nor increase government efficiency unless the decision makes economic sense. To be sure, a government authority may decide that downsizing is a political, not financial or economic imperative. Or outsourcing may serve as a threat to weaken the power of an entrenched bureaucracy or labor union. Or it may improve the short-term budget picture. Yet, government authorities and especially public sector managers, have a professional responsibility for addressing the long term."[6]

In spite of the best efforts of these and other researchers, the ambiguity surrounding public agency missions often creates the potential for misuse of outsourcing. This study attempts to provide the public sector with new techniques and insights for identifying their outsourcing needs from a "private sector perspective."

A Few Precautions

In general, research that attempts to translate private sector outsourcing lessons to the public sector has a decidedly skeptical and cautious tone. While researchers in this vein recognize outsourcing's general advantages, they do not hesitate to point to a number of uniquely public sector concerns that may extinguish outsourcing's advantages or in some cases even put the public at risk. The solution, they propose, is caution when considering outsourcing ventures, as well as attention to accountability, economies of scale, and competition.

A recurring theme in many works on the subject is the need for accountability and oversight. This is due, critics claim, to the potential for outsourced private sector service providers to "cut corners" and provide sub-optimal levels of service in pursuit of profit. Although the private sector literature (which is outlined later) recommends performance contracting to address this issue, public sector firms may not have such an option available. In general,

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[5] Gilbert Siegel (2000), "Outsourcing Personnel Functions," *Public Personnel Management* 29(2): 225-237.

[6] Jonas Prager (1994), "Contracting Out Government Services: Lessons from the Private Sector," *Public Administration Review* 54(2): 176-184.

public sector outsourcing practice recommends a strong monitoring mechanism, perhaps even through a third party or oversight committee, be built into every outsourcing agreement.[7]

A recent study by Johnston and Romzek describes a number of concerns about the management of outsourced Medicaid contracts in Kansas.[8] In fact, they argue, the costs of monitoring outsourced service contracts eliminated any benefit derived from the reform. According to their analysis, the same potential exists within all outsourcing agreements, especially in situations where performance measures are absent. A similar effect has been observed in several outsourcing efforts in which a lack of available third party providers amplified existing inefficiencies.[9] In short, when outsourcing happens for the sake of political rhetoric or other short-term gain, it may have the opposite effect. Even more unfortunate, according to Johnston and Romzek, is the observed tendency for public agencies to modify their policy goals and expectations in order to appease an outsourcing "crusade" or to match the service offered by a third-party provider.[10] Such practice, of course, is opposite outsourcing's intended effect.

■ The Transition To Outsourcing

After the decision has been made to outsource, there are a number of issues that arise regarding the transition toward outsourcing. Evidence throughout the literature emphasizes the importance of establishing a plan for moving forward on the outsourcing decision. A study that was developed from a survey of managers in *Transportation and Distribution* across the United States addressed many of the prevalent issues regarding the transition toward outsourcing.[11] Based on the survey results, Boyson et. al. suggested a strategic approach to outsourcing. This type of approach involves identifying long-term goals and separating supply chain activities from core competencies, rather than focusing on outsourcing single functions to correct for production deficiencies. The approach to outsourcing should evaluate costs and potential process improvements that can be gained from obtaining a third party service provider. Survey results from the study suggested that these tasks are most effectively accomplished through the use of internal knowledge capabilities.

Choosing, Contracting, and Managing Relationships with Third Party Service Providers

In the private sector, the most prevalent reasons for outsourcing are generally to reduce costs and increase revenues. Therefore, customer service capabilities and the cost of services are primary factors in selecting third party providers. The study by Boyson, et. al. also addressed the issue of selecting an outside service provider for outsourcing. According to the survey results, gathering information on available providers has been most effectively accomplished through in-house research and professional networks. The study also found that after a provider had been chosen and contracted, the relationship between the organization and the

[7] Bruce A. Wallin (1997), "The Need for a Privatization Process: Lessons from Development and Implementation," *Public Administration Review* 57(1): 11-21.
[8] Jocelyn Johnston and Barbara Romzek (1999), "Contracting and Accountability in State Medicaid Reform: Rhetoric, Theories, and Reality," *Public Administration Review* 59(5): 383-400.
[9] Douglas Herbst (1999), "Joint Leaps and Safe Landings," *American City & County* 114(4): 36-42.
[10] Johnston and Romzek, ibid
[11] Sandor Boyson, Thoms Corsi, Martin Dresner and Elliot Rabinovich (1999), "Managing Effective Third Party Logistics Relationships: What Does It Take?," *Journal of Business Logistics* 20(1): 73-99.

provider was most effectively managed through centralized systems that rely on in-house managers to audit and monitor the outsourcing agreement. Although public sector organizations do not necessarily have the goal of maximizing revenue, it is still essential to consider reducing costs and maintaining high quality customer service when choosing an outside service provider.

A second study developed from a survey of third party service users in the United States identified three major selection criteria for selecting third party (3PLs) service providers.[12] In this study, Menon, et. al. identified the first selection criterion as the perceived performance of the supplier. The perceived performance includes the perception of on-time performance, the ability to meet promises, the availability of top management, and excellent error rates. The second criterion, perceived capability, is comprised of the perception of creative management and financial stability of the provider. The third criterion identified was the role of prices; however, the study suggested that performance and quality requirements outweigh price considerations.

In a third study based on survey results, Lieb identified an almost even division between cost and service considerations as most important for selecting a third party service provider.[13] Other considerations for selecting a provider that were identified in the study include prior experience with the third party, management capability, company reputation, and financial stability.

The contractual agreement is central to the third party service provider relationship. In general, organizations are risk-averse toward outsourcing relationships. The study by Boyson, et. al. found that most contractual agreements include preventative measures, which are often reflected through contractual clauses that explicitly outline the relationship with the service provider including the costs for services, provider responsibilities and provider performance monitoring.[14]

In another government outsourcing study, Behn and Kant focused on the development of a contractual relationship with a third party service provider.[15] In the study, the authors made a distinction between regulatory contracting and performance contracting. Regulatory contracting focuses on the activities of the contractor. The rationale behind regulatory contracting is that there is one best way to fulfill a contract, the government knows the best way, the government is able to specify in contract language all of the details of the best way, the vendor will attempt to cheat the government, and government officials will collude with vendors for personal gain if given the opportunity. Regulatory contracts are also not viewed as effective outsourcing approach because they create few incentives for contractors to achieve the public purpose of the contract. With a regulatory contract, neither the agency nor the contractor is held accountable if the contract fails to produce the desired outcome.

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[12] Mohan K. Menon, Michael A. McGinnis and Kenneth B. Ackerman (1998), "Selection Criteria for Providers of Third-Party Logistics Services: An Exploratory Study," *Journal of Business Logistics* 19(1): 121-137.

[13] Robert C. Lieb (1992), "The Use of Third-Party Logistics Services by Large American Manufacturers," *Journal of Business Logistics* 13(2): 29.

[14] Boyson, et. al., ibid

[15] Robert D. Behn and Peter A. Kant (1999), "Strategies for Avoiding the Pitfalls of Performance Contracting," *Public Productivity & Management Review* 22(4): 470-489.

According to Behn and Kant, performance contracting is a more effective approach to outsourcing because it creates incentives for the contractor to achieve the desired result of the contract. Performance contracting specifies the expected results, allows the vendor to decide how to produce the desired results and only pays the contractor when the results have been achieved. The rationale behind performance contracting is that there are many acceptable ways to fulfill a contract, and the best way to motivate contractors who will implement that solution is to let them design it themselves.

Behn and Kant also indicated that there are a number of potential problems associated with performance contracting. Performance contracting might inhibit experimentation, encourage innovation in cost cutting but not service delivery, stifle overachievement, not provide for start-up costs, inhibit symbiotic relationships, reward promises but not performance, rely on outputs but not outcomes, use measures that distort behaviors, and undermine equity and fairness. However, there are a number of strategies that agencies can use to overcome these potential problems. Performance contracting must involve relationships that are linked to the mission of the organization, are easy to measure, understand and reproduce, and that facilitate benchmarking. Behn and Kant also suggested that it is necessary to frequently monitor many performance indicators in addition to those specified in the contract. Finally, it is important to pay vendors for significant progress and not just the final outcome.

Aside from the transitional decisions regarding service provider selection and the development of the contractual relationship, the organization must give consideration to a number of potential issues arising from the changing organizational climate that occurs with the transition to outsourcing. The study by Lieb, which was based on a survey of chief executives in the 500 largest manufacturing companies, identified some relevant issues that organizations should consider.[16] According to Lieb, the two most common concerns regarding outsourcing are the potential loss of direct control over activities being outsourced and uncertainty about the level of services to be provided by the outside company. Other concerns include estimating the true cost of third party services and the potential internal problems that might result from the shift to outsourcing.

In the study, Lieb also noted that the most prevalent implementation problem cited by the survey respondents was difficulty in convincing operating personnel and managers to "buy in" to the third-party service program. It was noted that this problem was primarily traced back to a lack of trust in the third party and concerns over job security. Other implementation problems identified by the survey included: difficulty integrating computer/information systems, the third party's lack of product knowledge, insufficient time for the implementation process, and a lack of clear lines of differentiation regarding third-party and internal responsibilities. On the other hand, the survey results also revealed a number of benefits experienced by companies using third party logistics providers, including: cost reduction, improved productivity and improved service. Finally, the study indicated that companies handled the displacement of personnel primarily through transfers to other positions within the company and terminations. In addition, a number of personnel were offered employment by the third party provider.

An article by McIvor and McHugh on the organizational changes resulting from the transition to a third party service provider suggested a multifunctional organizational change strategy

[16] Lieb, ibid

that supports cultural issues and has support and commitment from top management.[17] The strategy requires collaboration across multiple levels in the organization. Middle managers should be involved in helping people understand new priorities and ways of operating. In addition, employees at lower levels are involved and allowed to participate in the transition so that they will "buy in" to the new values and systems that affect their own work. According to McIvor and McHugh, the perspectives and responses from employees at all levels within the organization have a significant impact on whether the transition is successful. Finally, the transition to the third party provider and a new focus on quality and customer relationships often requires changes in the cultural climate of the organization. Attention must be given to these changes because performance is heavily dependent on the attitudes and commitment of the employees within the organization.

Best Practices in Implementation

Doug Garr offered an article on the current state of outsourcing practices and suggested a number of best practice strategies to ensure successful partnerships with third party providers.[18] Garr suggested that an organization should ask several essential questions before outsourcing. In particular, it is important to ask whether the relationship will reduce costs and improve efficiency in the organization. When looking for a service provider, an organization should consider hiring an outsourcing consultant or at least acquiring reliable legal assistance to negotiate the contract. However, an employee of the organization should always remain an internal point person for searching for a provider.

Once a provider is chosen, it is essential to clearly outline the complete scope of the services being turned over to the third party provider and that the provider understand the specifics of the contract. It may be necessary to include a dispute resolution clause. It is also essential to consider the length of the outsourcing agreement. For first time agreements, it may be beneficial to keep the contract short with a renewal clause at specific points. Finally, Garr suggested that it is essential to have a clear set of objectives for the outsourcer, and that the outsourcer has a strategic plan to achieve the objectives. It may be necessary to consider penalties for not meeting and/or achieving objectives and incentives for exceeding them.

A study by Murphy and Poist on user versus provider perspectives revealed the most important factors for successful third party relationships.[19] According to the survey results, both third party users and providers agreed that customer orientation and dependability were the two most important factors for successful relationships. Customer orientation refers to being responsive to customer needs. Dependability refers to services provided in a consistent and reliable manner. The third most important factor for successful relationships from the provider perspective was change orientation, which refers to the provider's ability to adapt to a changing business environment and develop contingencies to minimize system breakdowns. Finally, the third most important factor for the customer and fourth most important for the provider was timeliness, services and information provided promptly.

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[17] Ronan McIvor and Marie McHugh (2000), "Partnership Sourcing: An Organization Change Management Perspective," *Journal of Supply Chain Management* 36(3): 12-20.
[18] Doug Garr (2001), "Inside Out-sourcing," *Fortune* 143(13): 85-89.
[19] Paul R. Murphy and Richard F. Poist (2000), "Third-Party Logistics: Some User Versus Provider Perspectives," *Journal of Business Logistics* 21(1): 121-133.

Another study by Useem and Harder on the management of outsourcing projects identified four necessary capabilities in managers responsible for outsourcing initiatives.[20] Interviews of senior managers at twenty-five companies indicated that strategic thinking is one required capability of managers now that outsourcing has become more commonplace. Strategic thinking involves an understanding of whether to outsource and how outsourcing that improves an organization's competitive advantage can be accomplished. The second capability, deal making, refers to the ability of managers to broker deals that secure services from external providers and ensure their use by internal managers. The third capability is partnership governing, which refers to the ability to effectively oversee the outsourcing relationship after a contract has been established. Finally, it is essential for managers to be able to manage change because organizations transitioning to outsourcing are likely to encounter employee resistance.

[20] Michael Useem and Joseph Harder (2000), "Leading Laterally in Company Outsourcing," *Sloan Management Review* 41(2): 25-36.

Template For Case Studies

General Information

Three separate questionnaires were developed to interview and survey private sector manufacturers, third party service providers, and State Department of Transportation divisions. Surveys for the three groups took the form of written and electronic questionnaires telephone interviews and on-site personal interviews. The interviews and surveys were developed to recognize and document the unique issues facing each party as they approached outsourcing decisions and implementation. The survey instrument was constructed after referencing current industry literature and annual reports. A variety of question formats were used including multiple choice, required ranking attributes, and open-ended questions. Questions were intentionally designed to be broad enough to be applicable to different manufacturing processes, yet specific enough to capture outsourcing activities in a uniform and consistent format.

The private and public sector organizations targeted for this study were chosen for specific reasons. The manufacturers and third party service providers were selected because of their similarities to departments of transportation. All of the manufacturing companies were known to outsource some of their services. Although it was unknown whether or not the departments of transportation outsourced, the state departments of transportation that were surveyed were all cold weather states with similar characteristics to the Region V states of Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin.

Prior to the manufacturer and third party service provider interviews, the research team collected the information about each individual company. Sources of information included: the Internet, current periodicals, and trade industry data. During the interview process, time was allowed for open-ended discussions about specific unique project areas.

The original questionnaire was used as a pilot/test to interview the first private sector manufacturer. After this initial test, several modifications were made to simplify and clarify some of the open-ended questions and the interpretation of the information being reported. In particular, the survey was condensed and greater emphasis was placed on questions pertaining to outsourcing goals and objectives.

Private Sector Manufacturer Survey

The five private sector manufacturers surveyed included a motorcycle manufacturer, auto manufacturer, small engine manufacturer, asphalt company, and appliance manufacturer. This first survey was comprised of four sections. The questions in the first section of the survey were developed to identify the financial size and structure of the organization, with a focus on labor arrangements and manpower assignments in the areas of logistics and information technology. In addition, a brief history of the organization was recorded to assist in placing the responses in context. The second section targeted the identification of the organization's outsourcing goals and objectives. The third section pertained to information requirements and collection issues faced during the outsourcing process. The final section was comprised of questions intended to gather information on the planning process, program development and implementation of the outsourcing program. A sample of the survey questions is provided in Appendix A.

Third Party Service Provider Survey

After the manufacturers were interviewed and the responses reviewed, a separate survey was developed to explore the Third Party Service provider's perspective relative to outsourcing issues and practices identified by manufacturers. The two third party service providers surveyed included a small provider and a large provider. This second questionnaire was organized in the same four-section format with some questions modified to reflect the interview group. In addition, this second survey explored opinions about doing business with a government entity.

State Department of Transportation Survey

A total of 66 surveys were sent to State Department of Transportation Secretaries/Commissioners, Deputy Secretaries/Commissioners, Chief Highway Engineers, and Division Directors. The state departments of transportation surveyed included: Connecticut, Illinois, Indiana, Iowa, Kansas, Maine, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, New Hampshire, New Jersey, New York, North Dakota, Ohio, Pennsylvania, Rhode Island, South Dakota, Vermont, Virginia, Wisconsin. This third questionnaire followed the same four-section format, with questions focusing on organization size, scope, goals, information, plans and programs.

Case Studies

The private and public sector organizations targeted for this study were chosen for specific reasons. The manufacturers and third party service providers were selected because of their experience with outsourcing and their similarities to departments of transportation. Although it was unknown whether or not the departments of transportation outsourced, the state departments of transportation that were surveyed were all cold weather states. These states were chosen based on their similar characteristics to the Region V states of Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin.

■ Manufacturing Companies

Motorcycle Manufacturer

Description

This company is a manufacturer of motorcycles and a distributor of parts to a global dealer network of over 1,300 facilities in Europe, Japan, Australia, SE Asia, Latin American and the United States. The Company's annual revenue in 2000 was $2.2 billion of which $450 million was spent on logistics. Their parts distribution process generates 1,200 orders per day and requires management of $60 million in inventory. There are approximately 100 jobs involved in picking and delivering the product and approximately 75 jobs in the packaging area. Quality and superior customer service is the objective of this company headquartered in Wisconsin.

Survey/Interview Findings

The motorcycle manufacturer outsources the following functions: parts packaging and accessories, freight bill payment, advertising, and communications. The primary focus of outsourcing was to resolve the problem of excessive labor costs. With concerns over loss of control and the primary goal of maintaining product and service quality, the company considered customer perceptions in the decision to outsource. Although loss of control was a risk in developing an outsourcing program, the company expected that outsourcing would result in improved information and process control. However, one of the barriers impacting the outsourcing decision included obtaining financial information from the providers. Although outside experts were not involved in the outsourcing decision, selected providers were included in the planning process once the outsourcing relationship had been established.

With financial stability, physical equipment and capabilities, information technology, cost and quality as the most influential factors in the outsourcing decision, the motorcycle manufacturer indicated that they selected a provider using trade information. The Director and Vice President participated in the development of the RFP that included selection factors such as financial history, references, and project work. This information was used to review three to five potential providers. Benchmarks of other similar companies in the industry were used to evaluate the providers participating in the RFP selection. The Director was also involved in defining the scope of the work.

The company also indicated that 200 performance measures were needed to begin the outsourcing process. After an initial assessment of current operations was conducted,

outsourcing was introduced within the parts packaging and distribution functional areas. Heavily reliant on senior leadership to implement the outsourcing program, the company used customer surveys, industry trade information, and internal operations, that had been outsourced 3-4 years ago, as benchmarks for establishing goals for the recent outsourcing project.

Outsourcing was internally evaluated through multiple scorecards and measures. Although it was an intense process, the information was available internally and with suppliers and vendors. Data was primarily collected by internal process owners and managed with multiple internal programs. Internal process owners and managers evaluated the information collected by comparing performance versus goals and current performance versus past performance. Performance reviews took place weekly, monthly, quarterly and annually depending on the functions being reviewed. Data for performance measurement was given to the provider by carriers, suppliers, and vendors. In addition, the provider was managed contractually with incentives/penalties for performance, participation in gain sharing with exceptions managed on a daily basis. The most common point of friction centered on the establishment of written expectations. The multi-year relationship was introduced by a cross-functional transition team over several months.

The primary change that was made to the data collection process for the outsourcing project was an improvement in electronic collection and analysis. With new programs introduced by the provider, the results of outsourcing were increased customer satisfaction and cost reductions. With the most significant changes to the business resulting from outsourcing including improved quality, lower costs, and an improved information system, the company indicated that they would consider outsourcing other functions in the future. The most important lessons learned from the outsourcing experience were that the project was time intense and that the provider brings additional skill sets and resources to the process. Therefore, it is important to recognize the value of relationship building with the outsource provider. Finally, for state DOTs considering outsourcing, the motorcycle manufacturer recommended that it is important to remember that managing the relationship with the provider and maintaining trust are critical for successful outsourcing.

Auto Manufacturer

Description

As a domestic automotive manufacturer with global manufacturing and after market parts distribution facilities, this company employs over 10,000 employees. This company is comprised of $8 billion warehousing operation that serves more than 13,000 dealers and over 100 companies with parts. This division has $1.5 - $2 billion in annual expenditures for logistics. Everyone is considered to be involved in logistics in one form or another within this corporation. Approximately 5% of the company is involved in technology or systems support services. This company has been in operation over 90 years and outsources transportation, freight bill payment, select pre-assembly manufacturing functions, order fulfillment, and customer service functions. This company is headquartered in Michigan.

Survey/Interview Findings

The auto manufacturer indicated that they outsourced the following functions: outbound transportation, freight bill payment, inbound transportation, cross-docking, traffic management/fleet operations, information technology, order fulfillment, customer service and

selected manufacturing activities. The largest problem that the auto manufacturer was attempting to resolve by outsourcing was improved control over a large transportation and logistics networks. With concerns over selecting the right provider and the primary goal of cost reduction, the auto manufacturer considered the loss of internal expertise in the area before making the decision to outsource. Since the largest risks of outsourcing are loss of control and potential failure, internal organizational issues proved to be primary barriers impeding the decision to outsource. Outside experts were not involved in the outsourcing decision.

With the primary factors of financial stability, business qualifications, reputation/references, and chemistry and capability between the provider and the manufacturer as the most influential in the outsourcing decision, the auto manufacturer indicated that they selected a provider through an RFP process headed by senior managers and an outside consultant. The RFP included selection factors such as size, reputation and expertise. Fifteen potential providers were reviewed for pre-screen and 5 providers for final review. Responses to the RFP, interviews, and subsequent presentations were used to evaluate the potential providers. An internal team was involved in defining the scope of the work, while a statement of expectations was used to define expectations. In addition, unique policies and procedures were mutually established by the manufacturer and the provider.

The company also indicated that the most important information needed to begin the outsourcing process was establishing a good scope of the process. Outsourcing was introduced through gap analysis,[21] and providers were included in the planning process. An initial assessment of current operations was conducted prior to embarking on the process. In addition, a formal transition team that was dedicated to the process implemented the outsourcing project over one year.

Using benchmarks of professional knowledge and experience, the company indicated that outsourcing was internally evaluated with rigid metrics written into the contract. The term of the relationship was a three-year contract with renewal. The provider was managed through the contract and statement of expectations with contractual incentives/penalties for performance phased in over time, participation in gain sharing and exceptions managed by empowered managers. Performance reviews took place daily for cost reviews, weekly during implementation, monthly for projects going well, and quarterly for control purposes. However, the most common point of friction occurred when changes and new performance measures were introduced. Approximately half of the information used for performance measurement resided internally with carriers, suppliers and vendors, while claims and return information was found by manual collection and review. Data was collected electronically by vendors and customers and managed by the providers. The providers and internal process owners used predictive, exception and tolerance to evaluate and analyze the data.

The most significant change in the data collection process was to move everything into a single data system. With top-down leadership implementing the outsourcing program, the company met its expectations of improved metrics, technology and process. With new programs introduced by the provider, the results of outsourcing were improved cycle time and cost reductions. The most significant changes to the business that occurred as a result of outsourcing were improved visibility, capability and flexibility. In addition, the company indicated that consideration of outsourcing other functions in the future would most likely be

[21] Gap analysis is an analytical tool that is used to discover discrepancies between a company's performance and the expectations of its customers.

personality driven by the company leadership. The most important lessons learned from the outsourcing experience were about people, change and attitudes. The company learned that determining what defines success and streamlining the measurement process could achieve improvement. Finally, for state DOTs considering outsourcing, the auto manufacturer recommended that it is important to know why you are outsourcing and to define goals carefully.

Small Engine Manufacturer

Description

In 2000 this company generated $1.3 billion in revenues. Over 7,000 employees were involved in the manufacturing of small engines. Twenty people support information technology related tasks, 8 people are specifically assigned to traffic and transportation functions, 110 employees are directly involved in distribution in support of this small engine manufacturer. They outsource transportation, freight bill payment and cross-docking. This company is headquartered in Wisconsin.

Survey/Interview Findings

The small engine manufacturer indicated that they outsourced the following functions: packaging for retail items, outbound transportation, freight bill payment and inbound transportation. In trying to resolve the issues of high capital expenditures and excessive labor costs, financial issues were the primary factor influencing the company's decision to outsource. Outside experts were not involved in the decision to outsource. In addition, the company indicated that the perceived major risks to outsourcing were product quality, delivery performance and flexibility.

With the primary factors of cost, business qualifications, physical equipment and capabilities, and chemistry and capability as the most influential in the outsourcing decision, the small engine manufacturer indicated that they selected a provider through references, site visits and a review process. An internal cross-functional team participated in the development of the RFP, which included selection factors such as price and delivery standards and was used to review three potential providers. Cost and performance were the primary factors used to evaluate the providers. Sales and purchasing was involved in defining the scope of the work, while performance standards in the contract defined expectations. In addition, unique policies and procedures were developed jointly by the manufacturer and the provider.

The small engine manufacturer indicated that competitive quotes were the most important information needed to begin the outsourcing process. An initial assessment of current operations was conducted prior to beginning the outsourcing process, with providers included in the planning process. After overcoming the major barrier of selecting a provider that would fit with the company, outsourcing was introduced into the company almost immediately. In addition, a cross-functional transition team managed the implementation of the outsourcing project.

The company indicated that goals were established internally using performance measures such as fill rate and on time deliveries as evaluative tools. Delivery performance monitoring took place continuously with data for performance measurement provided by the manufacturer. The provider was managed through monitoring with contractual incentives/penalties for performance, participation in gain sharing for the back order process

and exceptions managed cooperatively through crisis management. The most common point of friction involved the back order process. The term of the relationship was a three-year contract with renewal. Although some of the data was unknown and left to the provider to define, the information resided in spreadsheet form and was managed by SAP, an e-business platform. Managers and analysts evaluated and analyzed the manually and electronically collected data by monitoring the data and comparing competitive bids.

Although the company was concerned with process and control management, the company approached the project with the primary goal of maintaining a competitive position by reducing costs and labor expenses. In doing so, the company was able to achieve the expected results of lower costs. With new programs introduced by the provider, the results of outsourcing were new ideas, expanded skills and reduced management time. The most significant changes to the business resulting from outsourcing were improved responsiveness and an opportunity for management to focus on core business. However, nothing changed in the data collection process with the outsourcing project. Finally, the company indicated that they would consider outsourcing other functions in the future.

The most important lessons learned from the outsourcing experience were about packaging and process management. The company indicated that a lesson learned is to carefully evaluate and compare the variable cost drivers. Finally, for state DOTs considering outsourcing, the company recommended that it is important to move slowly and be open minded, accurate and thorough.

Asphalt Company

Description

This is a privately held asphalt company. There are over 1,400 employees of whom 300 are non-union, full time, and 1,100 are seasonal union employees. Ten people are involved in information technology and 80 people are directly involved in logistics. This company is headquartered in Wisconsin and has been addressing build, design and repair issues for over 70 years. This company outsources transportation, warehousing, selected manufacturing functions, asset maintenance, and some information technology activities.

Survey/Interview Findings

The asphalt company indicated that they outsourced the following functions: outbound transportation, warehousing, inbound transportation, asset maintenance, information technology and select manufacturing activities. The decision to outsource these functions was an attempt to resolve a number of problems, including costly up-to-date technology, insufficient capacity, poor performance, staffing issues, lack of expertise and excessive capital expenses. With concerns over exposure, control and knowledge transfer, the company considered a number of factors in making the outsourcing decision, including cost, workload, knowledge, time and equipment expenditures. The major barriers impeding the company's decision to outsource were control, quality and human resource issues. Finally, outside experts were not involved in the decision to outsource.

With the primary factors of business qualifications, strategic direction, operational excellence, information technology and quality as the most influential in the outsourcing decision, the asphalt company indicated that they selected a provider by industry reputation, personal experience and interviews. The project manager, a consultant and the vendor

participated in the development of the RFP, which included selection factors such as cost, performance, equipment, experience, skill sets and management plan. The RFP was used to review a range of one to fifteen potential providers, which were evaluated by multiple interviews and reference checks. A project manager and project team were involved in defining the scope of the work, while the contract language and a statement of expectations defined expectations. In addition, unique policies and procedures were often developed for the specific project.

The company also indicated that an understanding of the process, costs and project scope were needed to begin the outsourcing process. Prior to outsourcing, an initial assessment of current operations was conducted with providers involved in the planning process only. Finally, using industry standards, bids and past experience as benchmarks for establishing goals, the outsourcing project was internally evaluated by the user of the service with product quality, performance and cost as the basis for evaluation. After addressing the primary risks of product quality, cost and flexibility, outsourcing was introduced by a top-down directive based on project specific past experiences. With the outsourcing transition management depending on the scope of the project, a transition team was not used.

Performance monitoring was not routinely conducted, but rather depended on the project. Data for performance measurement was provided by the project team and included measures for quality, performance and communication. All information was continuously available from regular conversations during implementation, but officially resided with internal associates familiar with the work. Suppliers, vendors and project managers collected the data, which was managed by critical path, Gantt charts, quality assurance (QA) sampling, and site monitoring systems. Project managers, the outsourcing team, and steering committees evaluated and analyzed the data by using comparisons to industry standards, industry trends, specification, and trend analysis. The provider was managed through meetings with no contractual incentives/penalties for performance, occasional participation in gain sharing and exceptions managed by working together as a team. The most common point of friction involved the integration of staff and human resources. The term of the relationship was year to year.

The primary change that occurred in the data collection process from outsourcing was that the vendors supplied more data electronically. The primary goals and objectives when the outsourcing began were cost reduction, improved knowledge and reduced labor costs. However, the company indicated that they did not always achieve the expected results of improved quality, knowledge transfer, lower costs and improved performance. With new programs introduced by the provider, the results of outsourcing were that the providers tended to grow into additional project areas and increased dependence of staff on outside consultants. The most significant changes that occurred, as a result of outsourcing, were improved performance and efficiencies. The company indicated that they would consider outsourcing other functions in the future.

The company indicated that the lessons learned from the experience were to develop tighter project definitions, conduct more up-front planning, work more closely with vendors and maintain regular review meetings. In particular, the company learned that the expectation setting was critical, initial requirements needed to be well defined, and the change control process was critical. Finally, for state DOTs considering outsourcing, the asphalt company recommended that state DOTs should outsource maintenance to outside contractors rather than the counties.

Appliance Manufacturer

Description

This $10.3 billion appliance company is headquartered in Michigan with 8 regional distribution centers in North America with over 366 power units and 1,136 trailers. Fifty-six managers supervise 1,438 employees directly involved in logistics. Over 12% of their employees are involved in technology support and information functions. This company has been in business for over 90 years with operations in over 170 countries worldwide. They outsource transportation, freight bill payment, warehousing, selected manufacturing processes and information technology.

Survey/Interview Findings

The appliance manufacturer indicated that they outsourced the following functions: outbound transportation, inbound transportation, warehousing, distribution, private fleet assets and information technology. In trying to address the problems of technology and performance inefficiencies and concerns over control and effectiveness, the company based much of the outsourcing decision on competitive threats. After admitting that the company was in need of improvement, the company established goals and objectives for outsourcing, which included enhancing technology, reducing costs, sharing risks and leveraging multi-client opportunities. Outside experts were not involved in the decision to outsource.

With the primary factors of financial stability, business qualifications, reputation/references, operational excellence, and chemistry and compatibility as the most influential in the outsourcing decision, the appliance manufacturer indicated that they selected a provider with a series of intensive interviews after an initial qualification scan. A cross-functional management team participated in the development of the RFP, which included selection factors such as skills set, size and track record. The RFP was used to review eight potential providers, which were evaluated by the RFQ and interviews. A cross-functional management team was involved in defining the scope of the work, while the contract language and a statement of expectations defined expectations. In addition, policies and procedures were tailored to the specific project with respect to industry data and trends.

The company also indicated that a good definition of the project scope and expectations were needed to begin the outsourcing process. An initial assessment of current operations was conducted prior to outsourcing, and providers were involved in the planning process. Using industry standards, current literature and technical research studies as benchmarks for establishing goals, the company indicated that outsourcing was internally evaluated by a cross functional team. After overcoming the major barrier of defining the project, the company relied on a structured approach by functional area to introduce outsourcing through the identification of external resources and outside skills that were needed to achieve the goal. With a multi-year contract, a transition team lead by the provider implemented the outsourcing project over several months. In doing so, the company was able to accomplish its expected results of network optimization and enhanced information capabilities.

Performance reviews took place daily, weekly, and monthly depending on the aspect being measured. However, exception areas were measured more frequently. Data for performance measurement was provided by vendors and the provider and was measured with detailed performance measurement and reviews. The provider was managed with regular reviews of contract expectations with contractual incentives/penalties for performance, participation in

gain sharing and exceptions managed collaboratively. The information and new measures that were introduced were available and resided across many internal systems and with the providers. The data was collected by the provider, gathering information from suppliers, vendors and internal customers and was managed using gap analysis, Gantt charts and Six Sigma Quality measurements.[22] The senior management team of the provider and the manufacturer evaluated and analyzed the information using comparisons to industry standards and measuring performance against the project plan.

The most significant change that occurred in the data collection process was a greater amount of electronic integration. With new programs introduced by the provider, the results of outsourcing were improved cycle times, information visibility and reduced costs. With an improved competitive position in the industry resulting from outsourcing, the company indicated that they would consider outsourcing other functions in the future.

The most important lessons learned from the outsourcing experience were that the establishment of a positive relationship and trust were critical to the success of the project. In addition, the company indicated that if given the opportunity again, they would make the outsourcing decision earlier. Finally, for state DOTs considering outsourcing, the appliance manufacturer recommended that the decision to outsource is based on trust as the key to a good relationship.

■ Third Party Service Providers

Small Provider

Description

This service provider is headquartered in Wisconsin and only performs services for member companies. They are a non-profit $19 million company. The company was started by 34 paper executives interested in boxcar consolidation and has expanded to a full service logistics firm with warehouse capabilities. They purchase over $12.5 million in transportation services for member companies.

Survey/Interview Findings

The small third party service provider indicated that they provided the following outsourcing services: outbound transportation, inbound transportation, freight consolidation and distribution, cross-docking and information technology. The most common goals of outsourcing were cost reduction and performance improvement. Similar to the responses of the manufacturing companies, the provider indicated that outside experts were not involved in the decision to outsource. Having identified the primary risk of outsourcing as loss of control, the company indicated that insufficient volumes to operate and a poor economy have proven to be barriers impeding the outsourcing decision.

By targeting clients on the basis of geography and commodity, the company considers the client's core competence, size and location when deciding to participate in a Request For

[22] Six Sigma is a disciplined, data-driven approach and methodology for eliminating defects (driving towards six standard deviations between the mean and the nearest specification limit) in any process -- from manufacturing to transactional and from product to service.

Proposal (RFP) or Request For Quotation (RFQ). With the most significant factors of financial stability, physical equipment and capabilities, operational excellence and quality influencing the selection decision, the company indicated that they selected and reviewed carriers and subcontractors with the use of quality program factors. In addition, the company performs an initial assessment of the client's operations prior to embarking on the outsourcing process. This assessment typically involves an evaluation of electronic information capabilities and quality measurement program. Expectations were typically defined by a core carrier program, policies and procedures, and through the contract language. Policies and procedures were uniquely established to reflect the client's interest based on provider standards. The company indicated that a limited number of the client's existing carriers were retained once the provider was fully transitioned in to the new service delivery process.

The company also indicated that one of the greatest challenges for outsourcing was to link carriers electronically and establish reporting standards. Data originating in multiple sources was reconciled by carrier feedback and review sessions and through a comparison of the carrier data to the order entry system. Generally, the carriers and customers provided the information, while the outsource provider retained the information on a confidential basis. Finally, the company indicated that performance was analyzed by comparing performance to expectations serving as benchmarks.

Five separate areas of performance were measured electronically as part of a daily process and formally on a quarterly basis with annual review. The carrier and the provider both provided the data for measurement. In addition, exceptions were managed through immediate identification on the provider's website and through a CRM system. Price issues were the most common point of contention.

Using university research, a quest for quality work and industry standards as benchmarks for establishing goals, the company indicated that they typically achieve lower costs and improved service for their clients. Finally, the company offered the following points for state DOTs considering outsourcing:

- The relationship is critical.
- Communication is essential.
- The outsourcing project never works as originally intended.
- Maintain an on-going dialogue.

Large Provider

Description

This $5 billion service provider employs over 30,000 employees globally and is over 73 years old. They are headquartered in Florida and provide full service lead logistics solutions featuring multimodal transportation services, freight bill payment, warehousing, freight consolidation and cross-dock operations. They have a subsidiary that performs product assemblies.

Survey/Interview Findings

The large third party service provider indicated that they provided the following outsourcing services: outbound transportation, freight bill payment, warehousing, inbound transportation,

freight consolidation and distribution, cross-docking, asset maintenance, traffic management and fleet operations, and product assembly. With competitive situations, their own experience and industry standards the most common benchmarks for establishing goals, the company agreed with the small provider in that cost reduction and performance improvement are the most typical goals of outsourcing. The primary barriers impeding the decision to outsource were technological limitations in overseas countries and a lack of a mature international transportation network.

By targeting clients on the basis of internal targeted research, the company indicated that they considered the client's size and complexity as well as their own ability to influence change within the client's company when deciding to participate in an RFP or RFQ. With the most influential factors of management depth and strength and physical equipment and capabilities, the company indicated that they selected and reviewed carriers and subcontractors by looking for the best in class and considering who was best positioned to deliver. Contrary to the manufacturing company responses, the provider indicated that, as outside experts, they were often involved in the client's decision to outsource. Expectations were defined through the negotiated scope of work, within the contract language and with the use of Key Performance Indicators. Policies and procedures were established by integrating customer and provider minimum standards.

An initial assessment of the client's operations was conducted by two different SWOT [23] teams, who learn as much as possible about the client's company and then compare notes. When the new process is implemented, the provider attempts to maintain continuity; therefore, a blended solution is achieved with respect to retaining the client's existing carriers.

Key measures for carrier performance included the cost, timeliness of services, information accuracy and speed of feedback. The company indicated that outsourcing performance was typically measured through contract terms, gain and pain sharing, and Specific Key Performance Indicators. Performance was reviewed weekly and monthly depending on event basis and supply chain complexity. In addition, exceptions were managed with solutions based on a snapshot in time. The carriers generally provided the data and self-diagnosis, while the provider reconciled the data against the order entry. The company indicated that it was necessary to first understand the data and then overlay it with source data. For example, data that originated from multiple sources was reconciled by first understanding the data source and how and why the measurement was being used, and secondly by using best practices in the industry to identify and reconcile the data. Typically, the carriers and customers provided the data, while the provider maintained ownership of the data; however, the ownership of the data was becoming more collaborative. Empowerment at the shop floor was critical. Friction points most commonly occurred during performance reviews.

[23] SWOT (Strengths, Weaknesses, Opportunities, and Threats) team analysis is an examination of a company's internal strengths and weaknesses and external opportunities and threats. It is generally used as a tool for decision-making.

Aside from the risks of insufficient research, inaccurate data and the potential for "getting it wrong", the company typically achieves the results identified through the Specific Key Performance Indicators. Finally, the company offered the following recommendations for state DOTs considering outsourcing:

- Do not send out an excessive number of RFPs.
- Consider your goals carefully.
- Carefully define deliverables.
- Identify key people within the organization.

■ State Departments of Transportation

A total of 66 surveys were sent to State Department of Transportation Secretaries/Commissioners, Deputy Secretaries/Commissioners, Chief Highway Engineers, and Division Directors. Thirty-one surveys were returned for a total response rate of 47%; however, only 28 of the 31 returned surveys were completed sufficiently to be usable. Since there were multiple respondents for some of the states, the survey responses were aggregated and described by each state that participated in the survey. The following states participated: Connecticut, Iowa, Kansas, Maine, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, New Hampshire, North Dakota, Pennsylvania, Vermont, and Wisconsin. The survey responses for each of these states are discussed below. A summary of survey responses by each individual transportation division is shown in Appendix D, E, F, and G.

Connecticut

Description

Connecticut subcontracts 68% of engineering and 10% of maintenance to private firms, while the state DOT provides the remaining 32% of engineering, 100% of asset management, and comprises 90% of maintenance providers. Managed assets were valued at about $543 million, while the remaining managed inventory had a value of $6.8 million.

Survey/Interview Findings

The division in Connecticut responding to the survey indicated that no functions were currently outsourced within the division. However, the division indicated that the primary risks of outsourcing were considered to be long-term cost overruns, response to emergency situations and direct control over the finished product. Outside experts were not involved in consideration of outsourcing. In addition, the division indicated that government regulations, labor agreements and current workload were the most significant barriers impacting the decision to outsource. The division did indicate that the most common goal for outsourcing would be safety and minimizing risk, which was based on the benchmark of previous contract history within the state DOT framework. Finally, the division did indicate that research of other state activities, expenditures, and labor issues would likely be necessary to begin the outsourcing process.

The division indicated that financial stability, business qualifications, cost and quality were most influential in the selection of providers in the past. Provider expectations were detailed through an open working relationship with the end deliverable defined by the budget and time. Policies and procedures were established primarily by using existing policies. With

performance measured weekly, superior performance was rewarded with honorary awards. The following items were included on the scorecards: on-time performance, product quality, capacity and capability to perform work and responsiveness. The most common points of friction were centered on increased inspections and administrative and labor issues.

The division also indicated that the quality of the results achieved from previous outsourcing had been equivalent to work performed by the state. As such, the division in Connecticut indicated that state DOTs should outsource to assist state forces when required by workload levels and when specialized equipment is needed that the state does not own.

Iowa

Description

The division in Iowa comprises 87.6% of maintenance providers and is responsible for 64% of engineering and all materials management. Private firms are subcontracted 12% of maintenance and 36% of engineering, while the county or other state agencies only provide 0.4% of maintenance. Managed assets were valued at about $93 million with an additional $5 million in other managed inventory.

Survey/Interview Findings

The division in Iowa indicated that they outsourced professional and technical consultant services. With the primary identified risks of quality, cost and time, the most significant barriers impacting the decision to outsource were current workload, quality constraints and outsourcing expertise. External experts were not involved in the decision to outsource. Using previous contract history within the state DOT framework as a benchmark, the typical outsourcing goals were available work force, performance improvement and cost reduction.

The transportation division indicated that the following factors were most influential in the selection of a provider: business qualifications, reputation/references, information technology, cost, quality, attitude and compatibility, and previous experience with the provider. Provider expectations, which were generally defined within one or two meetings, were developed through an open working relationship with the end deliverable defined by the budget and time. Policies and procedures were established primarily by using existing policies. With performance measured annually, superior performance was rewarded with more business given to the provider. The following items were included on the scorecard: budget accuracy, on-time performance, product quality, capacity and capability to perform work and responsiveness. The most common points of friction centered on quality control and cost.

The division also indicated that because of the experience of outsourcing for many years, there was no need for specific information to begin the outsourcing process. However, access to information did not improve as a result of outsourcing. The division also indicated that the quality of the results achieved by outsourcing were both equivalent to and lower than work performed by the state. Finally, the division in Iowa suggested that the following areas should be outsourced by state DOTs: projects requiring special expertise, large projects with tight timeframes, and projects when staff is not available.

Kansas

Description

The division in Kansas managed 100% of assets and made up 90% of the maintenance providers. The remaining 10% of maintenance providers and 75% of engineering were subcontracted to private firms. The state DOT provided 20% of engineering, while the remaining 5% was subcontracted to the county or other state agency. Managed assets were valued at about $173 million with an additional $65 million in other managed inventory.

Survey/Interview Findings

The Kansas division indicated that they outsourced asset maintenance and information technology. Concern for the most significant risks of quality control, cost and procurement time resulted in quality constraints and control of output being the primary barriers impacting the decision to outsource. Outside experts were not involved in the decision to outsource. With the use of previous contract history within the state DOT framework, the division established goals for outsourcing of labor issues and performance improvement

The division indicated that business qualifications, physical equipment and capability, quality, and previous experience with the provider were most influential in the selection of a provider. Defining provider expectations varied with the complexity of the services to be provided. In general, expectations were specifically documented standards with performance ratings and calibration, while policies and procedures were established through the use of existing policies. With performance measured monthly, superior performance was rewarded monetarily and with future contract preference given to the provider. The following items were included on the scorecards: on-time performance, product quality, administrative accuracy, budget accuracy, capacity and capability to perform work and responsiveness. The most common points of friction were employee resistance and concern for their jobs and workload pressures with limited staff.

The division also indicated that needs determinations, requirements definitions and internal cost estimates were necessary to begin outsourcing. The divisions also indicated that access to information was improved as a result of outsourcing. In addition, the quality of the results achieved by the outsourcing project were equivalent to work performed by the state. Finally, the division in Kansas suggested that the following areas should be outsourced by state DOTs: heavy and/or specialized maintenance activities, engineering investigations and information technology development.

Maine

Description

The division in Maine provides 98% of maintenance, 70% of engineering and all of the asset and materials management. All other services are subcontracted to private firms. Managed assets were valued at about $78 million. Maine also manages additional inventory of $126 million.

Survey/Interview Findings

The division in Maine that participated in the survey indicated that they outsourced information technology. The primary risks to outsourcing were quality, cost and schedule. The major barriers impacting the decision to outsource were labor agreements and the project size and scope. Outside experts were not involved in the decision to outsource. The typical goals of production, performance improvement and cost reduction were established on the basis of previous contract history within the state DOT framework and goals established by regulation.

The division indicated that business qualifications, cost and quality were most influential in the selection of a provider. Defining provider expectations typically varied with the scope of the project, but was generally loosely structured naming key areas of desired performance and quality. Policies and procedures were established primarily by using existing policies. With performance measured monthly, superior performance was rewarded monetarily. The following items were included on the scorecard: on-time performance, product quality, capacity and capability to perform work and responsiveness. The most common points of friction centered on the scope of services, cost and schedule.

The division also indicated that a reliable analysis of human resource demand was necessary to begin the outsourcing process. In addition, access to information improved as a result of outsourcing. The division also indicated that the quality of the results from outsourcing were equivalent to work performed by the state. Finally, the division indicated that the following areas should be outsourced by state DOTs: engineering and related services, transportation project construction, and technology development.

Massachusetts

Description

According to the divisions in Massachusetts that responded to the survey, 44%-50% of maintenance was subcontracted to private firms, 1%-4% were subcontracted to the county or other state agencies, and 49%-52% were done by the state DOT. The state DOT managed about 90% of assets and materials, while the remaining 10% of asset management and materials management was evenly divided between private firms and the county or other state agencies. The majority of engineering (75%-85%) was subcontracted to private firms, while only 5% of engineering was subcontracted to the county or other state agency. These divisions noted that the amount of assets managed had values that ranged from $28.5 million to $100 million, while the remaining managed inventory valued at a range of $4.5 million to $15 million.

Survey/Interview Findings

The transportation divisions in Massachusetts indicated that they outsourced the following functions: fleet management, asset maintenance, information reporting, information technology, and inventory management. With the primary risks of political opposition, labor issues, loss of quality control, and costs, the most significant barriers impeding the outsourcing decision were government regulations and labor agreements. The involvement of outside experts in the decision to outsource depended upon the division that was outsourcing. The divisions used previous contract history within the state DOT framework,

benchmarks suggested by providers and goals established by regulation to establish the typical goals of performance improvement and cost reduction.

The transportation divisions also indicated that the following factors were most influential in the selection of a provider: business qualifications, reputation/references, operational excellence, quality, safety record, financial stability, physical equipment and capabilities, and cost. Provider expectations, which took approximately one year to define, were both specifically documented standards with performance rating and calibration and measured performance standards that carried financial penalties and incentives. Policies and procedures were established through the use of existing division policies. With performance measured weekly or monthly (depending on the division), monetary awards for superior performance were sometimes given to providers. The following items were included on the scorecards: on-time performance, product quality, administrative accuracy, budget accuracy, capacity and capability to perform work and responsiveness. The most common points of friction were political and labor opposition.

One of the survey respondents indicated that information on past performance of the provider and the cost of the public sector work were necessary information to begin outsourcing. Another respondent indicated that for maintenance outsourcing it was necessary to prove that outsourcing was more cost effective than services provided in-house. In addition, the contracts were competitively bid. Both survey respondents indicated that the access to information has improved as a result of outsourcing.

Finally, the divisions indicated that the quality of the results achieved by the outsourcing project were higher than work performed by the state. The divisions also suggested that the following areas should be outsourced by state DOTs: maintenance, asset management, legal work, drawbridge operation, mowing and sweeping, and police detail such as traffic control.

Michigan

Description

The divisions in Michigan that responded to the survey indicated that 60% of maintenance was subcontracted to the county or other state agencies, 25% were done by the state DOT, and 15% were subcontracted to private firms. The state DOT is also responsible for 100% of asset and materials management. Depending on the division, approximately 25%-60% of engineering is subcontracted to private firms, while the remainder is done by the county or other state agency. Finally, one of the divisions indicated that their managed assets were valued at $8 million.

Survey/Interview Findings

According to the Michigan transportation divisions surveyed, the only function that is currently outsourced is appraisal services within the division. With concerns over the risks of losing critical core competencies, cost of controls, quality outputs, loss of direct project control, untimely delivery and insufficient budgets, the most significant barriers influencing the decision to outsource were government regulations, labor agreements, and quality constraints. The involvement of outside experts in the decision to outsource depended upon the division that was outsourcing. The divisions used benchmarks discussed in university studies, previous contract history within the state DOT framework and goals established by

regulation to establish the most common outsourcing goals of performance improvement, cost reduction and labor issues.

The following factors were most influential in the selection of a provider: financial stability, business qualifications, previous experience with the provider, reputation/references, operational excellence, cost, quality, and attitude and compatibility. Provider expectations, which took six months to one year to define depending on the project type and services being outsourced, were established through an open working relationship with the end deliverable defined by budget and time constraints. Policies and procedures were established through the use of existing division policies and by developing unique policies to manage the specific outsourced task. With performance measured monthly and when the project is completed; superior performance was rewarded with more business and future contract preference given to the provider. The following items were included on the scorecards: on-time performance, product quality, budget accuracy, capacity and capability to perform work and responsiveness. The most common points of friction were centered on the amount of effort to perform the work, performance of work without authorization, timely delivery of a quality product and defining what is an acceptable product.

The divisions indicated that information on the industry's capacity to handle the workload, experienced staff, and equipment quality and capacity were needed to begin the outsourcing project. In addition, federal laws and regulations, state laws and state policies were consulted prior to outsourcing. Finally, a list of available and interested appraisers was necessary to begin the project. The divisions also indicated that access to information improved as a result of the outsourcing project.

Finally, judging the quality of the results achieved in the outsourcing project depended upon the division that was outsourcing. Although most of the results were equivalent in quality to work performed by the state, some of the results were both lower and higher quality than the work performed by the state. Finally, the divisions suggested that the following areas should be outsourced by state DOTs: non-professional services where selection is based on price, where special expertise is required, to meet peaks in workload, in developing a legal description, appraisal services and billboard permit management.

Minnesota

Description

According to the divisions from Minnesota, the state DOT comprises approximately 90% of maintenance providers. In addition, the state DOT is responsible for 70%-100% of asset management, 70% of engineering, and 20% of materials management. Private firms were subcontracted for all other services not provided by the state DOT. Managed assets were valued at about $100 million with an additional $12.6 million in other managed inventory.

Survey/Interview Findings

The division in Minnesota that responded to the survey indicated that they outsourced warehousing, material distribution and inventory management. With concern over the risks of loss of future expertise, loss of quality control and added inspection costs, the division indicated that government regulations was the most significant barrier impacting the decision to outsource. Outside experts were not involved in the decision to outsource. Using previous

contract history within the state DOT, the typical goals of cost reduction and safety/risk were established for outsourcing.

Business qualifications, reputation/references, physical equipment and capability, quality, and attitude and compatibility were the most influential factors in the selection of a provider. Provider expectations, which are continually defined through an ongoing process, were loosely structured naming key areas of desired performance and quality. Policies and procedures were established primarily by using existing policies. With performance measured annually, superior performance was rewarded with monetary and honorary awards. The following items were included on the scorecards: administrative accuracy, on-time performance, product quality, capacity and capability to perform work and responsiveness. The most common points of friction resulted form contract specifications and coordination between the owner and prime contractor and subcontractors.

The division indicated that clear specifications of the scope of the work, contractor qualifications and a clear scope of responsibilities were necessary to begin the outsourcing process. In addition, access to information was improved as a result of outsourcing. The division also indicated that the quality of the results achieved by the outsourcing project were equivalent to work performed by the state. Finally, the division in Minnesota suggested that the following areas should be outsourced by state DOTs: highway and buildings constructions, highway and building design, and computer system design and execution.

Missouri

Description

The survey respondent from Missouri indicated that 85% of maintenance was done by the state DOT, 13% was subcontracted to private firms, and 2% was subcontracted to the county or other state agency. The state DOT was responsible for all of the asset and materials management, while engineering was evenly divided between the state DOT and private firms. Managed assets were valued at about $335 million, while the remaining managed inventory had a value of $199.4 million.

Survey/Interview Findings

The transportation division in Missouri that participated in the survey indicated that they outsourced material distribution and information technology. Outside experts were involved in the decision to outsource, and the division used previous contract history within the state DOT framework to establish goals for the outsourcing projects.

Business qualifications, physical equipment and capability, cost and other business contacts were most influential in the selection of a provider for the transportation division from Missouri. A provider expectation, which was a five-year process, was loosely structured naming key areas of desired performance and quality. In addition, unique policies and procedures were developed to manage the specific outsourced task. With performance measured annually, superior performance was rewarded with honorary awards and more business given to the provider. The following items were included on the scorecards: on-time performance, product quality, administrative accuracy, budget accuracy, capacity and capability to perform work and responsiveness. The most common points of friction were contractor claims from differences of opinion and agreeing on the quality of the final product.

The division indicated that a read-through of the American Association of State Highway and Transportation Officials (AASHTO) contracting guidelines was necessary to begin the outsourcing project. In addition, access to information did improve as a result of outsourcing, and the quality of the results achieved by outsourcing were equivalent to work performed by the state. Finally, the division in Missouri suggested that the following areas should be outsourced by state DOTs: bridge painting, asphalt overlays, and row mowing.

Nebraska

Description

According to the divisions from Nebraska, 90%-100% of the maintenance was done by the state DOT, while a small portion was subcontracted to private firms and the county or other state agency. The state DOT was responsible for 100% of asset and materials management, and 40%-70% of engineering. The remaining 30%-40% of engineering was subcontracted to private firms. Managed assets were valued at about $60 million, while the remaining managed inventory had a value of about $2 million.

Survey/Interview Findings

The transportation divisions in Nebraska indicated that they outsourced warehousing and material distribution. With the primary risks of loss of quality control, degradation of skills and increased cost, the most significant barriers impacting the decision to outsource were current workload, quality constraints, control of output and the project size and scope. With the use of outside experts in the decision to outsource, the most typical goals established for outsourcing were labor issues and cost reduction. The divisions also indicated that previous contract history within the state DOT framework, benchmarks suggested by providers and goals established by regulation were used to establish the goals for outsourcing.

The transportation divisions from Nebraska indicated that the following factors were most influential in the selection of a provider: business qualifications, reputation/references, operational excellence, quality, attitude and compatibility and previous experience with the provider. Provider expectations, which are in the process of being defined, are loosely structured naming key areas of desired performance and quality and are being developed through an open working relationship with the end deliverable defined by the budget and time. Policies and procedures for managing the specific outsourced task were both uniquely developed and established through the use of existing policies. With performance measured weekly and at key project milestones, superior performance was rewarded with monetary awards, future contract preference and more business given to the provider. The following items were included on the scorecards: on-time performance, product quality, administrative accuracy, budget accuracy, capacity and capability to perform work and responsiveness. The most common points of friction were centered on establishing appropriate oversight, resolving disputes over performance, consultant direction and detailed specifications.

Although one of the two divisions that responded to the survey indicated that they did outsource some functions, neither division indicated what information was necessary to begin the outsourcing process. However, the divisions did indicate that they did not expect that access to information would improve as a result of outsourcing. The quality of the results achieved by the outsourcing project have been either equivalent to or lower quality than work performed by the state depending on which division that was outsourcing. Finally, the

divisions in Nebraska indicated that the following areas should be outsourced by state DOTs: research, construction, rest area management, mowing and striping.

New Hampshire

Description

The New Hampshire state DOT provides 98.5% of maintenance, while the additional 1.5% is subcontracted to private firms. All of the materials management and 34% of the engineering is also provided by the state DOT, while the remaining 66% of engineering was subcontracted to private firms. Managed assets were valued at about $38 million with an additional $1.5 million in other managed inventory.

Survey/Interview Findings

The division from New Hampshire that responded to the survey indicated that they recently began and are in the process of implementing the first outsourcing projects of asset maintenance and road/bridge construction. The primary goal of implementing the outsourcing projects was to achieve cost reductions. With concerns over the risks of quality, responsiveness to the public and loss of internal expertise, the most significant barriers impacting their ability to outsource were quality constraints and control of output. The division did not indicate what information was needed to begin the outsourcing project, or if access to information has improved as a result of outsourcing.

Business qualifications and reputation/references were the most influential factors in selecting a provider. In addition, the quality of the work and costs were the most common points of friction in developing the new outsourcing relationship. Finally, the division suggested that the following areas should be outsourced by state DOTs: asset management development, ITS development, and deployment and disaster planning.

North Dakota

Description

North Dakota's state DOT provides 63% of maintenance, 52% of engineering, 95% of materials management and all asset management services. All other services are subcontracted to private firms. In addition, managed assets were valued at about $62.4 million with an additional $12 million in other managed inventory.

Survey/Interview Findings

The division in North Dakota indicated that the following functions are outsourced: information technology, inventory management, and construction and design engineering. With concerns over the risks of quality control, timely product delivery, and cost, the most significant barriers impacting the decision to outsource were quality constraints, control of output, current workload and project size and scope. Outside experts were not involved in the decision to outsource. The benchmarks used to establish outsourcing goals included previous contract history within the state DOT framework, standards suggested by providers, and goals established by regulation. The most common goals established for outsourcing were to overcome a shortage of in-house staff, safety/risk and performance improvement.

The transportation division indicated that business qualifications, quality, and attitude and compatibility were most influential in the selection of a provider. Defining provider expectations is an ongoing process that the division continues to work on. Expectations were detailed both loosely structured naming key areas of desired performance and quality and through measured performance standards with financial penalties and incentives. Policies and procedures were established primarily by using existing policies. With performance measured monthly, superior performance was rewarded by future contract preference and more business given to the provider. The following items were included on the scorecard: budget accuracy, on-time performance, product quality, capacity and capability to perform work and responsiveness. The most common points of friction occurred in communication regarding quality control and conformance to DOT standards.

Updated process and procedure manuals and information on in-house workload and expertise were necessary to begin the outsourcing process. Although access to information improved as a result of outsourcing, the division indicated that the quality of the results achieved by outsourcing were lower than work performed by the state. Nonetheless, the division suggested that the following areas should be outsourced by state DOTs: specialty items where the state does not have the expertise and to meet demands when there are peaks in funding.

Pennsylvania

Description

The range of maintenance providers for Pennsylvania varied considerably depending on the division responding to the survey. According to the divisions, 10%-85% of maintenance was provided by the state DOT, while the remainder of maintenance was subcontracted to private firms. Approximately 90%-100% of asset management was also provided by the state DOT, while the remaining portions of asset management was provided by private firms. In addition, the state DOT provided 20%-100% of engineering and 29%-100% of materials management depending on the division responding to the survey. Although most of the remaining service provisions were subcontracted to private firms, the county or other state agency was subcontracted by one division for 50% of the engineering. Managed assets were valued at $32 to $350 million with additional managed inventories valued at a range between $100,000 and $9.2 million

Survey/Interview Findings

According to the divisions in Pennsylvania, paving operations, asset maintenance, and information technology and reporting were outsourced. The most significant risks of outsourcing were labor issues, quality control, timeliness and costs. Labor agreements, government regulations, and current workload were the barriers with the greatest impact on the outsourcing decision. However, outside experts were never involved in the decision to outsource. Using all possible benchmarks as the basis, the typical goals of cost reduction and performance improvement were established.

Cost, business qualifications and quality were most influential factors in the selection of a provider. Although defining provider expectations varied considerably depending on the project, expectations were generally detailed as either measured performance standards with financial penalties and incentives, or specifically documented standards with performance rating and calibration. Policies and procedures were always established by using existing policies. With performance measurement ranging from weekly to annually, superior

performance was rewarded by honorary rewards, monetary rewards and future contract preference given to the provider. The following items were included on the scorecards: administrative accuracy, budget accuracy, on-time performance, product quality, responsiveness, and capacity and capability to perform work. The most common points of friction involved labor union issues, cost, timeliness, departmental policies and defining the scope of the project.

The divisions indicated that the following information was necessary to begin the outsourcing project:

- Information on what the desired final product would be.
- The who, what, where, when, and how of the project.
- Cost comparisons and suggested contract prices for outsourcing.
- In-house capacity and ability.

In addition, one division noted that it was essential to have qualified people who understand the state system.

Access to information improved as a result of outsourcing about 50% of the time. In addition, the quality of results achieved by outsourcing were always either equivalent to or higher than work performed by the state. Finally, the divisions in Pennsylvania suggested that the following areas should be outsourced by state DOTs:

- New construction, maintenance surface improvements, and interstate/limited access signs.
- Tree removal, herbicide spraying, and mechanical brush cutting.
- Snow removal, paving, and guide rail.
- Paving, roadside maintenance, and equipment-painting services.
- Surface treatment operations, highway lighting maintenance, and line painting.
- Paving, roadside maintenance, and equipment-painting services.
- Paving and guide rail improvements.
- Those areas lacking expertise, where labor agreements make use comparison and in a make versus buy process.
- Construction inspection, some design, and building maintenance.
- Where needs exceed current abilities to do in-house and major construction projects.

Vermont

Description

The state DOT in Vermont provided 50% of engineering, 75% of materials management, 85% of maintenance, and all asset management services. The remainder of all services were subcontracted to private firms. Managed assets were valued at $17.7 million with an additional $220.6 million in other managed inventory.

Survey/Interview Findings

The division in Vermont that responded to the survey indicated that no functions were outsourced, which may be a function of concerns over the risks of quality control, cost control and outsourcing too much. Outside experts were not involved in consideration of outsourcing. In addition, the division indicated that quality constraints, control of output and

current workload were the most significant barriers impacting the decision to outsource. The division did indicate that the most common goal for outsourcing would be cost reduction, which was based on a variety of benchmarks.

Financial stability, business qualifications, information technology and quality were the most influential factors in the selection of providers in the past. Provider expectations were detailed through an open working relationship with the end deliverable defined by the budget and time. Policies and procedures were established primarily by using existing policies. With performance measured annually, superior performance in the past was rewarded with honorary awards and future contract preference given to the provider. The following items were included on the scorecard: administrative accuracy, budget accuracy, on-time performance, product quality, responsiveness, and capacity and capability to perform work. The most common points of friction were centered on realistic scheduling and cost containment.

The division indicated that work load projections, a list of qualified and available consultants, in-house work projection, and funding projections would be necessary to begin an outsourcing project. However, the survey respondent could not provide an indication of whether information improved from outsourcing since there were no services being outsourced by the division. The division did indicate that the quality of the results achieved from previous outsourcing had been equivalent to work performed by the state. Finally, the division suggested that state DOTs should only outsource engineering services.

Wisconsin

Description

The Wisconsin state DOT provides 20% of maintenance, 50% of engineering, 90% of asset management, and 100% of materials management services. The county or other state agency provides 70% of maintenance, while all other services are subcontracted to private firms.

Survey/Interview Findings

The division in Wisconsin that responded to the survey indicated that asset maintenance and information technology were outsourced. The most significant risks of outsourcing were contract performance, the small number of vendors to choose from and the higher costs than in-house expertise. Government regulations, labor agreements and current workload were the barriers with the greatest impact on the outsourcing decision. In addition, outside experts were involved in the decision to outsource. Using the benchmarks of previous contract history within the state DOT framework and goals established by regulation as the basis, the typical goals of ease in hiring contractors, performance improvement and cost reduction were established.

The division indicated that the following factors were most influential in the selection of a provider: business qualifications, physical equipment and capability, cost and previous experience with the provider. Provider expectations, which were defined in a range of days to months depending on the size of the project, were detailed through an open working relationship with the end deliverable defined by the budget and time. Policies and procedures were established primarily by using existing policies. With performance measured weekly, superior performance was rewarded by future contract preference given to the provider. The following items were included on the scorecard: budget accuracy, on-time performance,

product quality, and capacity and capability to perform work. The most common points of friction occurred during the vendor selection process and differences of opinion in quality performance.

The division also indicated that information on the size of the project and the time for completion was necessary to begin the outsourcing process. In addition, access to information improved as a result of outsourcing, and the quality of results achieved by outsourcing were equivalent to work performed by the state. Finally, the division in Wisconsin indicated that the following areas should be outsourced by state DOTs: lawn mowing and snow plowing for DOT buildings, janitorial services, and any area DOT lacks on-board expertise.

Evaluation of Survey Findings

This section evaluates the survey responses for the three groups taking part in this project. The evaluation provides a series of summary tables for the manufacturing, 3PL, and state department of transportation divisions. The complete survey results are provided in the appendices.

Outsourcing challenges facing the public sector have similarities to private sector challenges. The listing of similarities between public and private characteristics and processes provides a basis of exchange that centers on a cooperative exploration of ideas and principles. These common challenges also indicate, based on the experiences of the private sector, the only way to ensure that an organization will achieve the desired results is through a management tool – often called a scorecard. The scorecard is put in place before the services are delivered and serves as the objective benchmark for performance measurement to which both organizations commit. By evaluating the common challenges and objective measures between the private and public sectors, it is possible to establish a series of outsourcing criteria needed in the outsourcing scorecard.

■ Establishment of Goals and Objectives

The surveys that were sent to the department of transportation divisions began with the basic question, "What do you outsource?" Of the 28 transportation division respondents answering this question, 13 indicated that the division did not currently outsource and 15 indicated various levels of outsourcing experience. Thus, 15 departments of transportation divisions, 5 manufacturing companies, and 2 third party service provider respondents are comparable regarding outsourced services. As provided in Table 1, the most common outsourced and provided services (as is the case for the 3PLs) are information technology, asset maintenance, material distribution, warehousing, and fleet management.

Table 1: Outsourced Services

	DOT	Manufacturers	3PLs
Information Technology	9	3	2
Asset Maintenance	5	1	1
Material Distribution	3	4	2
Warehousing	2	2	1
Fleet Management	1	2	1
	N = 15	N=5	N=2

Since 13 of the transportation division respondents indicated no participation in outsourcing, all transportation division respondents were asked about the characteristics and processes that allowed for or impeded outsourcing. The first question asked the transportation division respondents about the barriers to outsourcing. The barriers to outsourcing are an important aspect for the development of an outsourcing decision making scorecard. These barriers provide insight into the institutional setting in which the outsourcing is or would be occurring. To understand these barriers, the transportation division respondents were asked to rank, on a scale of 1 (low) to 5 (high), the barriers that impacted their ability to outsource. As provided in Table 2, the results indicate that the primary barriers to outsourcing are labor agreements followed by government regulations. These are important institutional barriers that seem to impede or influence outsourcing decisions. This finding differs from the

manufacturers in which only one of the manufacturers indicated that internal organizational issues are barriers to outsourcing.

Table 2: Barriers – Department of Transportation Divisions		
	Mean Score	N
Labor Agreements	3.29	28
Government Regulations	2.86	28
Current Workload	2.85	27
Project Size/Scope	2.63	27
Quality Constraints	2.54	28
Control of Output	2.48	27
Outsourcing Expertise	2.48	27

Since little is known about the results of assimilating private sector objectives into those of the public sector, the responding groups were asked to provide the top three risks to outsourcing. As provided in Table 3, the transportation division respondents and manufacturers were very similar in naming quality as a risk. However, the two groups differ between the risks of cost and product control. The risks associated with cost containment were seen as one of the top three risks to outsourcing for 19 of the 28 transportation division respondents, while only 1 out of 5 manufacturers noted this as an important risk.

Table 3: Risks	**DOT**	**Manufacturers**
Quality	22	2
Cost	19	1
Product control	5	2
Contract performance	3	1
Response to situational problems	2	2
	N=28	N=5

The use of experts to assist in the analysis of the outsourcing decision may provide external validity to the decision and decrease the risks associated with outsourcing. However, the transportation division respondents used experts only about 22% of the time and none of the manufacturers used experts to assist in the outsourcing decision. Thus, both groups are similar with respect making the outsourcing decision without the assistance of experts.

Yes, outside experts were involved in the decision to outsource		
DOT	**Manufacturers**	**3PLs**
22.2%	0%	50%
N = 27	N=5	N=2

Since the groups do not generally use experts to assist in the outsourcing decision, the question arises with respect to how benchmarks are used to establish outsourcing goals. With respect to benchmarking, little difference is found among the groups. As provided in Table 4, the benchmark used most often by the groups is previous history with outsourcing experiences, indicating that institutional history plays a critical role in the decision making process.

Table 4: Benchmarking			
	DOT	**Manufacturers**	**3PLs**
Previous history	25	4	1
Private industry benchmarks and key performance indicators	5	3	2
Benchmarks discussed in logistics studies done by Universities	4	1	1
	N=27	N=5	N=2

As described above, manufacturer, transportation division, and 3PL respondents are similar in many respects when instituting the outsourcing decision. The groups are similar in current outsourcing activities, barriers, and risks associated with outsourcing. In addition, the groups exhibit minimal differences in using expert assistance and rely on institutional history to guide their benchmarks.

■ Information and Analysis Systems

One critical aspect of outsourcing is information accessibility. When comparing the manufacturing and transportation division respondents, the transportation division respondents provided diverse responses to an open-ended question assessing the necessary information to begin the outsourcing process.

Table 5: Information Needs		
	DOT	**Manufacturers**
Cost	9	5
Needs determination/Defining service	7	4
Industry's capacity/Qualifications	5	1
In-house Expertise/Workload	4	0
Contracting guidelines	2	0
Labor Issues	2	0
Prior Research	2	0
Competitive Process	2	0
Past performance	1	1
Quality	1	0
Scope of Responsibilities	1	1
Time	1	0
	N=21	N=5

As provided in Table 5, costs and service needs determination are common themes among the department of transportation and manufacturer respondents. In addition, transportation division respondents distinctively focused on specific information such as provider capacity and qualifications and the availability of in-house expertise. This difference is important because the distinct information focuses on labor and specialization issues. In addition, the transportation division respondents noted the need to assess the internal mechanisms of the organization prior to outsourcing decision-making. These issues can be accounted for in the scorecard. Since the transportation division respondents indicated a much larger scope of organizational information needed to embark on the outsourcing decision, a public sector scorecard needs to incorporate a greater amount of institutional items than a private sector scorecard would.

When the transportation division respondents were asked whether or not access to information had improved as a result of outsourcing, about 57% indicated that access had improved over time. This improvement helped the decision to outsource and the analysis of outsourcing's impact. In addition, both the manufacturer and 3PL respondents indicated that electronic collection and analysis improved, and increased electronic integration has changed the information and data collection processes. Thus, the responses from all three groups were complementary.

Has your access to information improved?		
Yes	**No**	**Don't Know**
13	9	1

■ Development of Plans and Programs

An essential aspect in the decision to outsource or to be a provider of outsourcing is the development of the relationship between the outsourcer and the provider. As indicated in both the interviews and survey instruments, this relationship is foremost the essences of satisfaction with the decision to outsource or the decision to provide outsourcing services and is a critical aspect to the development of an outsourcing scorecard. The factors that influence the decision to outsource are important for providing the groundwork for developing an outsourcing relationship and scorecard themes. To assess the factors that influence the decision to outsource, the groups were asked to weight the factors on a scale from 0 (no impact) to 5 (high impact) and the mean score for each factor was evaluated. Based on statistical analysis, the transportation division respondents were different from the other two groups with respect to the factors influencing provider selection only in choosing strategic direction as an important factor.[24]

As provided in Table 6, both the transportation division and manufacturing respondents rated business qualifications of the provider as the most important factor influencing the outsourcing decision. In addition, cost was an important influencing factor for the transportation division respondents. This finding coincides with the transportation division respondents' ranking cost information high on the list of informational needs to begin outsourcing.

Other factors that influenced the outsourcing decision were quality, reputation, and operational excellence. Manufacturing respondents ranked financial stability, operational excellence, cost, and quality as equivocally the second most important factors in selecting a provider. Although operational excellence, cost, and quality ranked similarly with transportation division respondents, financial stability was not as highly ranked. Instead, state transportation respondents weighted reputation as one of the most important factors influencing provider selection.

[24] Using Analysis of Variance (ANOVA) to determine the differences in mean responses between the three groups, strategic direction was the only factor that was statistically significant with a probability value less than 5%. All other factors were not statistically significant using the probability value of 5%.

Table 6: Factors Influencing Provider Selection			
	Mean Score		
	DOT	Manufacturers	3PLs
Business qualifications	4.47	4.60	3.50
Cost	4.29	4.00	4.25
Quality	4.11	4.20	4.50
Reputation/references	3.59	4.00	3.75
Operational excellence	3.19	4.20	4.75
Physical equip. & capability	2.92	4.00	5.00
Attitude and compatibility	2.85	4.20	3.75
Financial stability	2.79	4.20	4.50
Information technology	2.19	3.80	4.00
Strategic direction	1.15	3.20	3.75

Other essential components for the outsourcing decision making process include establishing policies and procedures and performance incentives. As provided in Table 7, all three survey groups noted that the provider's (client's) policies and procedures were not used for defining policies and procedures for outsourcing. The transportation division respondents overwhelmingly used existing policies and procedures, which provides another clear indication of the value of the public institution's history. Transportation division respondents cited unique policy development only 15% of the time, while manufacturers and 3PLs most often developed unique policies and procedures to meet the needs of the particular outsourcing venture.

Table 7: Defining Policies and Procedures			
	DOT	Manufacturers	3PLs
Used Existing	22	1	0
Used provider's (Client's)	0	0	0
Developed Unique	4	4	2
	N=26	N=5	N=2

In addressing performance incentives, all manufacturing respondents offered providers gain sharing at least sometimes, while monetary awards were offered by the transportation division respondents 52% of the time. As provided in Table 8, future contract preference or more business were all offered less than 50% of the time by state transportation respondents. These differences between the transportation division respondents and the manufacturing respondents appear to also be a function of the institutional setting, including the limitations placed on state transportation departments with respect to monetary rewards.

Table 8: Performance Incentives		
	DOT	Manufacturers
Monetary award	12	5
Honorary award	8	0
Future contract preference	6	5
More business	9	5
	N=23	N=5

One key focus of outsourcing is the timing of performance measures. Provider's performance was measured from as often as daily to as stark as at the end of the project. The majority of state transportation respondents identified weekly and monthly as the most common performance measurement timing. This finding is consistent with the manufacturing respondents; however, manufacturing respondents identified a custom tailored approach to the timeliness of performance measurement. This approach included continuous and daily assessment in addition to the weekly and monthly assessments depending on what aspect of performance was being measured. Overall, manufacturing respondents emphasized the necessity of continuous and consistent performance measurement, especially when faced with exceptions to standard company practice.

How often is performance measured?			
	DOT	**Manufacturers**	**3PLs**
Weekly	6		
Monthly	8		
Annual	4		
Other	9	5	2
	N=27	N=5	N=2

As provided in Table 9, all of the transportation division respondents indicated that product quality was included on their scorecards. However, administrative accuracy was included in the scorecard only 59% of the time, and budgetary accuracy was included only 79% of the time. Table 9 also provides the complete scorecard items included in the survey question.

Table 9: Scorecard Items – DOT Respondents		
	Percentage	N
On time performance	96%	28
Product quality	100%	28
Administrative accuracy	59%	22
Budget accuracy	79%	24
Capacity and capability to perform work	100%	27
Responsiveness	93%	27

The comparative findings from the surveys and interviews provide for several commonalities among the groups. These commonalities provide important indicators, categories, attributes, and metrics for the development of an outsourcing decision making scorecard. The derived scorecard must define clear objectives allowing for common terminology and application. The goal of the next section of this report is the derivation of an outsourcing decision making scorecard.

Decision Making Scorecard

"If the mission and strategic direction of the provider differs with that of the client, the relationship between the two groups will not be conducive to the outsourcing objectives, this is a relationship not a contract." – *Survey Respondent*

Defining performance criteria has traditionally been the focus of the derivation of a contract performance scorecard. The concept of performance criteria is not a new concept for department of transportation professionals, because it resembles a similar activity used in contracting for specific projects. However, the results of this study indicate that the traditional focus of a scorecard would be insufficient as a decision making tool for department of transportation administrators making decisions on whether or not to outsource. Thus, the differences between traditional scorecards and the scorecard presented in this report are based on what has been learned from the manufacturing and 3PL interviewees. The scorecard presented in this report is designed to serve as a decision making tool for administrators to identify services that have the potential for successful outsourcing.

The relationship between the corporation and the outsource provider is viewed by both the manufacturers and the 3PLs as much more complex than a performance contracting relationship. Using the continuum in Figure 1, as the contractual relationship moves from a market relationship toward privatization, the complexity of the relationship increases. As a result, the importance of building a long-term mutual relationship becomes increasingly crucial. Thus, moving from a performance contract relationship to outsourcing requires that the focus of the relationship shift from a set of contractual arrangements toward a mutual and trustful relationship that is continually managed by both parties. Successful outsourcing must be treated as much more than a specified contract – it is a relationship.

Figure 1: Contractual Relationship Continuum

Market Relationship	Performance Contracts	Outsourcing	Privatization

Adapted from The Outsourcing Research Council and Michael F. Corbett & Associates, Ltd. 2001

All five manufacturers and the two 3PLs focused on relationship building with the provider well beyond the formal contractual scope. The companies inferred that relationship building was a critical aspect in the decision making process, regardless of whether or not a trusting relationship could be attained. In addition, a well-developed relationship was seen as providing further necessary opportunities for refining the outsourced services in order to achieve the goals and objectives of the contract.

In order to establish the ability for relationship building that the private sector suggests is essential, a department of transportation considering outsourcing must first identify its core competencies. By identifying core competencies, the organization can evaluate the nonessential services that are currently provided but have the potential for outsourcing. Non-core services constitute those which the organization feels are necessary to be provided on a continual basis,

but do not necessarily need to be provided by the organization itself. These types of services have the potential to be successfully outsourced because of their long-term focus and less substantial impact on the mission of the organization as a whole. With a long range outlook and not a project-specific focus, an organization will have the ability to begin the process of relationship building that is required for successful outsourcing.

The following scorecard is presented as a decision making tool for departments of transportation considering outsourcing for a specific service. The tool is designed to first provide an indication of the institutional setting of the organization. The institutional setting includes an identification of whether the service under consideration for outsourcing is a core competency and has a long-term focus. These questions are intended to assist the decision maker in determining if the potential for relationship building exists. If this potential does not exist, the service under consideration should probably not be outsourced. If the potential for relationship building does exist, the remainder of the scorecard helps the decision maker identify specific issues that might need to be addressed before outsourcing begins or that may prove to be barriers affecting the success of outsourcing the service.

Sample Outsourcing Decision Making Scorecard

Service Considered for Outsourcing _____

Institutional Setting

1.	Is this a functional part of our core competencies?	____ Yes	_____No
2.	Does this service need to be provided on a continual basis?	____ Yes	_____No
3.	Do we have in-house expertise to provide this service?	____ Yes	_____No
4.	Do we have available workload to provide this service?	____ Yes	_____No
5.	Can we legally outsource this service?	____ Yes	_____No

Risks

6.	Would loss of control of this service harm the organization?	____ Yes	_____No
7.	Would loss of expertise have a negative impact on the department of transportation?	____ Yes	_____No
8.	Is quality of service delivery a concern?	____ Yes	_____No
9.	Would the response to situational problems be reduced?	____ Yes	_____No
10.	Would current contract performance be negatively impacted?	____ Yes	_____No

Goals and Objectives

11. Can the goals for this service be clearly defined? ____ Yes _____No

12. Are the goals for this service long-term? ____ Yes _____No

13. Can the achievement of the goals be objectively measured? ____ Yes _____No

14. Are objective measures currently in place for this service? ____ Yes _____No

15. If the goals and objectives are not achieved, will this have a negative impact upon the department of transportation? ____ Yes _____No

Provider Evaluation

16. Are there known external providers for this service? ____ Yes _____No

17. Do the mission and strategic goals of the providers align with the department of transportation mission and strategic goals? ____ Yes _____No

18. Are the providers known to have the capability to provide this service? ____ Yes _____No

19. Has the department of transportation had previous relationships with providers of this service? ____ Yes _____No

20. Are the providers known to deliver high quality services? ____ Yes _____No

Recommendations and Conclusions

This project focused on the outsourcing challenges facing the public sector. Clearly, our interviews and surveys indicate that public sector challenges with respect to outsourcing are similar to private sector challenges. The similar challenges include issues surrounding internal organizational cooperation, defining of the projects, mutually agreeable performance measures and indicators of success/failure, human resource issues, and the development of clear and precise relations between the outsourcer and the provider. These challenges were found in both the private and public sector interviews and surveys. Although common challenges existed for both the private and public sector respondents, common results were also found. This section provides some concluding remarks on the findings of this project.

■ Conclusions

One of the important findings from this project is the role that prior experience plays in the outsourcing decision. Although both the private and public respondents agree that experience is critical, the private sector respondents tended to look toward experts to bridge this gap, while the state transportation respondents did not. This may be an important issue for state transportation agencies; knowledge in outsourcing may be a key element to success, whether experience is internally or externally available.

Common linkages between the respondents were found in the similarity of goals, such as cost reduction, quality, and labor relations. It appears that the goals are very similar between the sectors, however the means of obtaining them differ. In the private sector, these results were obtained in several ways through use of performance incentives, like gain sharing. This allowed the outsourcer a set of objective performance measures to address the issue of monetary rewards such as gain sharing. In the public sector, only about one-half of the respondents used monetary rewards as a performance incentive, while about one-half used future business as an incentive.

Common ground was found when looking at current outsourcing activities. These outsourcing activities included fleet management, asset maintenance, material distribution, information technology, and warehousing. When focusing on the factors that influenced the selection of providers for these outsourcing tasks, state transportation and manufacturer respondents were similar when strategic direction is removed as one of the weighting factors. Strategic direction was seen by manufacturers as an important factor, with an average weight of 3.20 out of 5.00, where 5.00 indicates a high impact and 1.00 indicates a low impact. The state transportation respondents gave this factor an average score of approximately 1.00 out of 5.00, statistically significantly different from the manufacturing respondents. There was no statistically significant difference between the groups for the remaining common factors, which included financial stability, reputation, physical equipment and capability, operational excellence, information technology, cost, quality, and compatibility. This is important in assessing objective criteria for provider selection. If the groups differ on what is important when selecting a provider, the task of using a common model for application in the public sector becomes very difficult.

State transportation and manufacturing respondents both agreed that key concerns surrounding the risks of outsourcing were loss of control, quality issues, and degradation of skills within the organization. When barriers that impact the ability to outsource were presented, labor issues ranked highly with state transportation respondents, third party

providers, and manufacturing respondents. Workload issues in the state transportation respondents further impacted this focus on labor issues. These are important issues and were prominent in the state transportation responses.

To provide recommendations for public sector transportation entities considering outsourcing, we asked both manufacturing and third party provider respondents to offer recommendations. The results of these recommendations follow a key pattern in respect to relationship building prior to and during the outsourcing activity. Foremost, according to manufacturers and third party providers, is relationship development and management. This is the key in most business-type activities regardless of whom the provider of services may be. A repeated recommendation for state transportation entities from these two groups was the development of a clear goal and a focus on accurate and thorough definitions of that goal. As one of the interviewees stated "a general goal of cost reduction or timely service delivery are not measurable unless the specifics of what cost reduction and timeliness mean is clearly articulated in the outsourcing objective." Overall, both manufacturing and third party provider respondents suggest that state transportation entities develop focused relationships, keep communications open and on-going, have a goal that is carefully defined with measurable deliverables, and that open mindedness, accuracy and thoroughness in the development of the outsourcing relationship will provide the critical trust necessary to assure the outcome desired. These finding were incorporated into the decision making scorecard derived from the interviews and surveys.

Prominently, what to outsource is the key to participating in this activity. Commonly, core competency is a factor in what activity should be done in-house and what activity should be outsourced. As we alluded to in the literature review, this is not a simple task in public agencies. Although the decision of what to outsource is more difficult in public agencies, we asked the state transportation respondents to tell us what they would recommend as potential activities for outsourcing. This is a critical tool in making recommendations to public sector agencies, what they note as non-core competencies. State transportation respondents told us what three areas they felt should be outsourced. Although many of the respondents indicated that specialized activities and tasks requiring expertise should be outsourced, several respondents cited mowing, snow removal, and janitorial services as good outsourcing candidates. Only one transportation respondent identified maintenance and asset management as a good candidate for outsourcing, although it could be insinuated that maintenance management includes mowing, snow removal, and janitorial services.

■ Recommendations

One of the focal purposes of this project was to provide recommendations for the establishment of a decision making scorecard that would inform transportation officials of criteria to consider when evaluating outsourcing opportunities, concerns to be evaluated, and other factors that might influence a decision. To accomplish this critical task, we offer a sample scorecard. The scorecard was based on the information obtained in both the interview and survey results. Although imperfect, the observations provided for the development of the decision making scorecard combine lessons learned in previous work by AASHTO and TRB with the results of this project.

- First and foremost, the decision to outsource must incorporate a change in the treatment of the traditional performance contract relationship. This change must

include the degree to which the contractual relationship continuum flows. Simply put, successful outsourcing appears to be predicated on a relationship, not a contract.

- Giving consideration to the private sector interviewees, the second important aspect to successful outsourcing is the identification of the organization's core competencies. By identifying core competencies, the organization can evaluate the non-core services that are currently provided but have the potential for outsourcing. Non-core services constitute those which the organization feels are necessary to be provided on a continual basis, but do not necessarily need to be provided by the organization itself.

- One aspect of this project is the importance of goals and objectives. The outsourcing relationship cannot begin without a set of measurable objective criteria. This includes a consideration of the question of what the impact of non-achievement will be.

- Evaluating the availability of third party service providers is a key to the decision making process. Capability and quality are critical aspects of this evaluation.

Given the information gathered in this project, we propose the following set of recommendations for state transportation officials:

1. Pay particular attention to the institutional setting in which the outsourcing is taking place. Will this decision negatively impact the department of transportation by assigning a core competency to the private sector? Incorporate these issues into the decision making process.

2. The decision to outsource incorporates a series of risks. These need to be carefully assessed.

3. Measuring provider performance can potentially be a point of contention for the outsourcing relationship. Objective measures need to be mutually established with opportunities for modification as the need arises.

4. Although quality was identified as a concern and a friction point, the actual quality of services were found to be equivalent or higher than the work performed by the state. This finding indicates that departments of transportation should place less emphasis on quality as a constraint to the outsourcing decision.

5. Relationship management is critical for successful outsourcing. Departments of transportation need to adopt a new perspective on outsourcing, from one of performance contracting to one that considers outsourcing as a long-term relationship.

6. The outsourcing decision cannot be rushed. Open mindedness, accuracy, and thoroughness are far more important to the outsourcing decision than swiftness.

APPENDIX A

Private Sector Manufacturer Survey Questions

Background

1. Financial Information
    a. 1999 and 2000 Revenues
    b. Return on assets

2. Core competence

3. Number of employees
    a. Labor structure
    b. Number of employees in information technology
    c. Number of employees in logistics related fields

4. Brief History

Establishment of Goals and Objectives

5. What do you outsource?

			Estimated expenditure/Percent of Revenue
YES	NO	Outbound transportation	
YES	NO	Freight bill payment	
YES	NO	Warehousing	
YES	NO	Inbound transportation	
YES	NO	Freight consolidation/distribution	
YES	NO	Cross-docking	
YES	NO	Selected manufacturing activities	
YES	NO	Advertising and communications	
YES	NO	Asset maintenance	
YES	NO	Traffic management/fleet operations	
YES	NO	Information technology	
YES	NO	Product assembly	
YES	NO	Order Fulfillment	
YES	NO	Customer Service	

Other (describe):

6. What problems were you trying to solve by outsourcing?

7. What concerns do you have about outsourcing?

8. What factors influenced your decision to outsource?

9. What were your goals and objectives when you started outsourcing?
    a. Cost reduction
    b. Labor issues
    c. Competitive pressures

10. Did you understand what you were outsourcing well enough to incorporate that function into your business?

11. Were outside experts involved in the decision to outsource?

12. What were the risks of outsourcing?

13. What results did you expect from outsourcing? Did you achieve them?

14. What barriers impeded your outsourcing decision?

15. How was outsourcing introduced?

16. What type of leadership was required to implement the outsourcing program?

17. Were providers included in the planning process?

18. Did you perform an initial assessment of current operations before you embarked on the process?

19. What benchmarks/models did you use to establish goals?

20. How is outsourcing internally evaluated by your company?

Information

21. What information did you need to begin the process?

22. Where did the information reside?

23. Was the data available, if not what was missing and how did you find it?

24. What information system/program do you use to manage the data?

25. How was the data collected?

26. Who evaluates the information collected?

27. How do you analyze the data?

28. What changed in the data collection process?

29. What would you do differently?

Development of Plans and Programs

30. How did you select a provider?
    a. Review process
    b. Asset or non asset provider
    c. Sole source decision

31. How was the Request For Proposal created?
    a. Who participated in the development?
    b. What factors were included?

32. Weigh the factors that influenced your provider selection? (1= low, 5=high)
    ____ Financial stability
    ____ Business qualifications
    ____ Management depth and strength
    ____ Reputation/references
    ____ Strategic direction
    ____ Physical equipment and capabilities (site visit?)
    ____ Operational excellence
    ____ Information technology
    ____ Cost
    ____ Quality
    ____ Chemistry and Compatibility

33. How many providers were reviewed?

34. How did you evaluate the providers, what criteria did you use?

35. Who was involved in defining the scope of the work? How did it change?

36. How were the expectations defined?

37. How were policies and procedures established?
    a. Did you use your existing policies?
    b. Did you use the provider's policies?
    c. Were unique policies developed to manage your business?

38. How do you measure the provider's performance
    a. How often do you review the provider's performance?

39. Who provides the data for measurement?

40. Are there friction points? If so where?

41. Are there contractual incentives/penalties for performance?

42. Do you participate in gain sharing?

43. How are exceptions managed?

44. What is the term of your relationship?
    a. Year to year?
    b. Multi year with annual renewal provision?
    c. Evergreen?

45. Was there a transition team?

46. How was the transition managed? How long did it take?

47. Did the provider introduce new programs?

48. How do you manage the provider?

49. What are the results of outsourcing?

50. Would you consider outsourcing other areas in the future?

51. How has outsourcing changed your business?

52. What did you learn in the outsourcing process?

53. What recommendations would you have for State DOT's considering outsourcing?

APPENDIX B

Third Party Service Provider Survey Questions

Background

1. Financial Information
    a. 1999 and 2000 Revenues
    b. Return on assets

2. Number of employees
    a. Labor structure
    b. Number of employees in information technology
    c. Number of employees in central offices
    d. Number of employees on site at client locations

3. Brief History and discussion of core competence

Establishment of Goals and Objectives

4. What do outsource services do you provide?

			Estimated expenditure/Percent of Revenue
YES	NO	Outbound transportation	
YES	NO	Freight bill payment	
YES	NO	Warehousing	
YES	NO	Inbound transportation	
YES	NO	Freight consolidation/distribution	
YES	NO	Cross-docking	
YES	NO	Selected manufacturing activities	
YES	NO	Advertising and communications	
YES	NO	Asset maintenance	
YES	NO	Traffic management/fleet operations	
YES	NO	Information technology	
YES	NO	Product assembly	
YES	NO	Order Fulfillment	
YES	NO	Customer Service	

Other (describe):

5. How do you target clients?

6. What factors influenced your decision to participate in a RFP?
    a. Size
    b. Core competence
    c. Complexity
    d. Liability
    e. Contractual language/length of contract
    f. Ability to influence change
    g. Compensation structure
    h. Labor issues
    i. Sole source issues

7. Rank order typical goals and objectives in outsourcing projects?
    _____Cost reduction
    _____Labor issues
    _____Competitive issues
    _____Performance improvement
    _____Other – please identify

8. Were outside experts involved in the client's decision to outsource?

9. What were the risks of outsourcing?

10. What results do you typically achieve in outsourcing projects?

11. What barriers impeded your performance?

12. Were the client's carriers/providers retained in the process?

13. How did you perform the initial assessment of operations before you embarked on the process?

14. What benchmarks/models did you use to establish goals?

15. How is your performance measured?

Information

16. What information did you need to begin the process?

17. Was the data available, if not what was missing and how did you find it?

18. If the data came form multiple sources how did you reconcile it?

19. How do you analyze performance and who provides the data?

20. Who owns the information?

Development of Plans and Programs

21. How did you select and review carriers and subcontractors?

22. Weigh the factors that influenced your provider selection? (1= low, 5=high)
    ____ Financial stability
    ____ Business qualifications
    ____ Management depth and strength
    ____ Reputation/references
    ____ Strategic direction
    ____ Physical equipment and capabilities (site visit?)
    ____ Operational excellence
    ____ Information technology
    ____ Cost
    ____ Quality
    ____ Chemistry and Compatibility

23. How were the expectations defined?

24. How were policies and procedures established?
    a. Did you use your existing policies?
    b. Did you use the client's policies?
    c. Were unique policies developed to manage the business?

25. How do you measure the provider's performance?

26. Who provides the data for measurement?

27. How often do you review the provider's performance?

28. Are there friction points? If so where?

29. How are exceptions managed?

30. What recommendations would you have for State DOT's considering outsourcing?

APPENDIX C

State Department of Transportation Survey Questions

Background

1. Department of Transportation Budget

    a. 1999 $_____
    b. 2000 $_____
    c. List top five areas of spending and percentage of budget:
        _____ area _____percent of total budget
        _____ area _____percent of total budget
        _____ area _____percent of total budget
        _____ area _____percent of total budget
        _____ area _____percent of total budget

2. Number of employees involved in maintenance:
    _____ Number of employees in information technology
    _____ Number of employees in central offices
    _____ Number of employees on site at client locations

3. Maintenance providers:
    _____ Percent of maintenance subcontracted to private firms
    _____ Percent of maintenance subcontracted to County or other state Agencies
    _____ Percent of maintenance done by State DOT

4. Asset management providers:
    _____ Percent of asset management subcontracted to private firms
    _____ Percent of asset management subcontracted to County or other state Agencies
    _____ Percent of asset management done by State DOT

5. Engineering providers:
    _____ Percent of engineering subcontracted to private firms
    _____ Percent of engineering subcontracted to County or other state Agencies
    _____ Percent of engineering done by State DOT

6. Material management providers:
    _____ Percent of materials management subcontracted to private firms
    _____ Percent of materials management subcontracted to County or other Agencies
    _____ Percent of materials management done by State DOT

7. Describe the inventory that you are currently managing:

	Estimated Value	Annual Turns
a. Assets (vehicles, tools, machines)	_____	_____
b. Operating inventory (fuel, oil, paint)	_____	_____
c. Administrative/office equipment supplies	_____	_____
d. Other _____	_____	_____

Establishment of Goals and Objectives

8. What does your agency outsource?

			Estimated expenditure/Percent of Revenue
YES	NO	Bill payment	
YES	NO	Warehousing	
YES	NO	Material distribution	
YES	NO	Fleet management	
YES	NO	Asset maintenance	
YES	NO	Information reporting	
YES	NO	Information technology	
YES	NO	Inventory management	
Other (describe):			

9. Rank the barriers which impact your ability to outsource: (1=low, 5=high)
   e. Government regulations 1 2 3 4 5
   f. Labor agreements 1 2 3 4 5
   g. Quality constraints 1 2 3 4 5
   h. Control of output 1 2 3 4 5
   i. Current workload 1 2 3 4 5
   j. Outsourcing expertise 1 2 3 4 5
   k. Project size/scope/control 1 2 3 4 5

10. Rank in order (1=highest, 5=lowest) typical goals and objectives in outsourcing?
    _____Cost reduction
    _____Labor issues
    _____Safety/Risk
    _____Performance improvement
    _____Other – please identify_____

11. What do you consider the top three risks of outsourcing?
    l. _____

m. _____
n. _____

12. When the decision to outsource was made, were outside experts involved in the decision to outsource?
    _____ yes
    _____no

13. Are the results achieved in outsourcing projects: (mark one statement)
    o. ____ Lower quality than worked performed by State.
    p. ____ Equivalent to work performed by the State.
    q. ____Higher quality than work performed by the State.

14. What benchmarks/models did you use to establish goals? (check all that apply)
    r. _____ Benchmarks discussed in logistics studies done by Universities.
    s. _____Private industry benchmarks and key performance indicators.
    t. _____Goals and measurements discussed in trade magazines and web sites.
    u. _____Previous contract history within State DOT framework.
    v. _____Benchmarks suggested by providers.
    w. _____Goals established by regulation.

15. Please indicate any performance incentives or rewards you give for superior performance.
    x. _____ Monetary award
    y. _____ Honorary award
    z. _____ Contract preference in future bids
    aa. _____ More business

16. What information did you need to begin the outsourcing process?

17. Please describe your scorecard, check all that apply:
    _____ On time performance
    _____ Product quality
    _____ Administrative accuracy
    _____ Budget accuracy
    _____ Capacity and capability to perform the work
    _____ Responsiveness

18. How often is performance measured?
    _____ Weekly
    _____ Monthly
    _____ Quarterly
    _____ Annually

19. Has your access to information improved? (circle one) YES NO

20. Weight the factors that influenced your provider selection? (1= low, 5=high; 0 for no impact)
    ____ Financial stability
    ____ Business qualifications, technical expertise
    ____ Reputation/references
    ____ Strategic direction
    ____ Physical equipment and capabilities (site visit?)
    ____ Operational excellence
    ____ Information technology
    ____ Cost
    ____ Quality
    ____ Attitude and Compatibility
    ____ Safety record
    ____ Size of firm
    ____ Other similar business contracts
    ____ Previous experience with the provider

21. How long did it take to define expectations?

22. How detailed were the initial expectations? (choose one)
    _____ Open working relationship with end deliverable defined by budget and time
    _____ Loosely structured naming key areas of desired performance/quality
    _____ Specifically documented standards with performance ratings and calibration
    _____ Measured performance standards which carry financial penalties and incentives

23. How were policies and procedures established?
    _____ Used your existing policies
    _____ Used other 3PL policies
    _____ Unique policies developed to manage the outsourced task

*****PLEASE COMPLETE THE FOLLOWING TWO QUESTIONS*****

24. Name two common points of friction when outsourcing.

25. What three areas do you feel should be outsourced?

APPENDIX D

State Transportation Divisions Background Information

State Transportation Agencies/Divisions Background Information						
Survey Questions	Agency / Division 1	Agency / Division 2	Agency / Division 3	Agency / Division 4	Agency / Division 5	Agency / Division 6
DOT 1999 Total Budget	$ 980,000,000	*	$ 1,174,419	$ 500,000,000	$ 500,000,000	$ 889,000,000
DOT 2000 Total Budget	$ 1,200,000,000	$ 2,958,685,700	$ 1,372,969	$ 500,000,000	$ 500,000,000	$ 848,000,000
List top five spending areas and percentage of budget.						
	Personnel - 60%	*	Construction - 69%	Construction - 76%	Highway Construction - 54%	Capital Improvements - 56%
	Capital - 25%	*	Maintenance - 22%	Maintenance - 16%	Personnel Services 18%	Federal & State Aid - 16%
	Administration - 5%	*	Service Operations 6%	Information Systems - 4%	Construction Services - 7%	Capital Outlay - 10%
	Maintenance - 10%	*	Administration - 3%	Services & Support - 4%	Road Equipment - 3%	Debt Service - 6%
	*	*	*	*	Supplies & Materials - 5%	Salaries - 7%
Number of Employees involved in maintenance of:						
Information Technology	50	*	2	60	87	19
Central Offices	3000	116	110	700	762	44
On Site at Client Locations	5000	704	2800	0	1421	0
Percentage of Maintenance Providers:						
Subcontracted to Private Firms	50%	15%	13%	5%	0%	10%
Subcontracted to county/other state agencies	1%	60%	2%	5%	0%	0%
Done by state DOT	49%	25%	85%	90%	100%	90%
Percentage of Asset Management:						
Subcontracted to Private Firms	5%	N/A	0%	0%	0%	0%
Subcontracted to county/other state agencies	5%	N/A	0%	0%	0%	N/A
Done by state DOT	90%	N/A	100%	100%	100%	100%
Percentage of Engineering:						
Subcontracted to Private Firms	75%	60%	50%	30%	40%	75%
Subcontracted to county/other state agencies	5%	N/A	0	0%	0%	5%
Done by state DOT	20%	40%	50%	70%	40%	20%
Percentage of Materials Management:						
Subcontracted to Private Firms	5%	N/A	0%	0%	0%	0%
Subcontracted to county/other state agencies	5%	N/A	0%	0%	0%	0%
Done by state DOT	90%	N/A	100%	100%	100%	N/A
Inventory Currently Managed (Value/Annual Turns):						
Assets	$ 100,000,000 *	N/A N/A	$ 334,900,000 *	* *	$ 60,000,000 25	$ 172,600,000 *
Operating Inventory	$ 15,000,000 *	N/A N/A	$ 27,400,000 *	* *	$ 260,000 10	$ 12,700,000 4
Administrative Supplies	$ 5,000,000 *	N/A N/A	N/A N/A	* *	$0 0	$ 14,900,000 *
Other (Specified)	* * *	Finance, Automotive & Equipment * *	Land & Buildings $ 172,200,000 *	* * *	Supplies & Materials $ 1,700,000.00 1.6	Building & Land $ 37,500,000 *

State Transportation Agencies/Divisions Background Information Continued

Survey Questions	Agency / Division 7	Agency / Division 8	Agency / Division 9	Agency / Division 10	Agency / Division 11	Agency / Division 12
DOT 1999 Total Budget	$ 990,929,451	$ 88,300,000	$ 1,561,799,000	$ 722,000,000	$ 450,000,000	$ 354,326,000
DOT 2000 Total Budget	$ 1,048,776,500	$ 93,400,000	$ 1,610,153,000	$ 781,000,000	$ 450,000,000	$ 354,326,000
List top five spending areas and percentage of budget.						
	Personal Services - 34.37%	Payroll - 61%	Aid to Local Government - 35%	Highway Improvement - 67%	Capital Program - 55%	Highways - 89.1%
	Bus Operations - 18.08%	Snow and Ice Program - 16%	State Road Construction - 32%	Highway Maintenance - 14%	Maintenance - 30%	Fleet - 4.8%
	Rail Operations - 17.82%	Maintenance Contracts - 10%	Maintenance - 13%	Project Development - 8%	Administration - 5%	Administration - 3.6%
	Town-Aid - 10.23%	Fringe Benefits - 2%	Aeronautic - 4%	Motor Vehicle Divisions - 4%	Other - 10%	Motor Vehicles - 1.2%
	Other Expenses - 10.44%	Utilities/Fuel -8%	Construction Program Delivery - 9%	Operations - 7%	*	Driver Licenses - 1.3%
Number of Employees involved in maintenance of:						
Information Technology	1	4	6	0	0	35
Central Offices	43	140	40	63	50	375
On Site at Client Locations	*	305	1670	1384	1450	0
Percentage of Maintenance Providers:						
Subcontracted to Private Firms	10%	44%	10%	12%	2%	35%
Subcontracted to county/other state agencies	N/A	4%	0%	0.4%	0%	2%
Done by state DOT	90%	52%	90%	87.6%	98%	63%
Percentage of Asset Management:						
Subcontracted to Private Firms	0%	0%	0%	*	0%	0%
Subcontracted to county/other state agencies	N/A	0%	0%	*	0%	0%
Done by state DOT	100%	0%	100%	*	100%	100%
Percentage of Engineering:						
Subcontracted to Private Firms	68%	85%	30%	36%	30%	48%
Subcontracted to county/other state agencies	0%	0%	0%	0%	0%	0%
Done by state DOT	32%	15%	70%	64%	70%	52%
Percentage of Materials Management:						
Subcontracted to Private Firms	0%	0%	80%	0%	0%	5%
Subcontracted to county/other state agencies	0%	0%	0%	0%	0%	0%
Done by state DOT	0%	0%	20%	100%	100%	95%
Inventory Currently Managed (Value/Annual Turns):						
Assets	$ 542,993,073 *	$ 28,500,000 *	$ 100,180,000 *	$ 92,900,000 *	$ 78,000,000 1/10	$ 62,400,000 *
Operating Inventory	$ 574,484 *	$ 4,500,000 *	$ 12,332,000 0.45	$ 5,000,000 4	$ 4,000,000 2	$ 4,600,000 *
Administrative Supplies	$ 296,000 *	N/A N/A	$ 242,000 2	N/A N/A	$ 12,000,000 1/3	$ 7,400,000 *
Other (Specified)	Inventory supplies excluding salt/sand $ 5,956,078 *	N/A N/A N/A	N/A N/A N/A	N/A N/A N/A	Buildings $ 110,000,000 N/A	N/A N/A N/A

State Transportation Agencies/Divisions Background Information Continued

Survey Questions	Agency / Division 13	Agency / Division 14	Agency / Division 15	Agency / Division 16	Agency / Division 17	Agency / Division 18
DOT 1999 Total Budget	*	*	$ 1,775,746,300	*	*	$ 446,000,000
DOT 2000 Total Budget	*	*	$ 2,058,102,000	*	*	$ 483,000,000
List top five spending areas and percentage of budget.						
	*	*	Transportation Aids - 23%	*	*	Capital Projects - 44%
	*	*	Local Transportation Capital Assistance - 17%	*	*	Maintenance - 16%
	*	*	State Highways - 46%	*	*	Other State Agencies - 11%
	*	*	State Operations - 9%	*	*	Personnel - 11%
	*	*	Debt Service & Reserves - 5%	*	*	Block Grants to Communities - 5%
Number of Employees involved in maintenance of:						
Information Technology	*	*	4	*	*	47
Central Offices	*	*	56	*	*	80
On Site at Client Locations	*	*	200	*	*	1100
Percentage of Maintenance Providers:						
Subcontracted to Private Firms	*	*	10%	*	*	1.5%
Subcontracted to county/other state agencies	*	*	70%	*	*	0%
Done by state DOT	*	*	20%	*	*	98.5%
Percentage of Asset Management:						
Subcontracted to Private Firms	*	*	10%	*	*	N/A
Subcontracted to county/other state agencies	*	*	0%	*	*	N/A
Done by state DOT	*	*	90%	*	*	N/A
Percentage of Engineering:						
Subcontracted to Private Firms	*	*	50%	*	25%	66%
Subcontracted to county/other state agencies	*	*	0%	*	0%	0%
Done by state DOT	*	*	50%	*	25%	34%
Percentage of Materials Management:						
Subcontracted to Private Firms	*	*	0%	*	*	0%
Subcontracted to county/other state agencies	*	*	0%	*	*	0%
Done by state DOT	*	*	100%	*	*	100%
Inventory Currently Managed (Value/Annual Turns):						
Assets	*	*	N/A	*	*	$ 38,000,000 *
Operating Inventory	*	*	N/A	*	*	$ 6,000,000 *
Administrative Supplies	*	*	N/A	*	*	$ 12,000,000 *
Other (Specified)	*	*	N/A	*	*	GASB $ 2,300,000 *

APPENDIX E

Establishment of Goals and Objectives Survey Response Tables

Table 1: Manufacturing Company Survey Responses for the Establishment of Goals and Objectives

Survey Questions	Motorcycle Manufacturer	Auto Manufacturer	Small Engine Manufacturer	Asphalt Company	Appliance Mfg.
What do you outsource?	Parts packaging and accessories, freight bill payment, advertising and communications.	Outbound transportation, freight bill payment, inbound transportation, cross-docking, traffic management/fleet operations, information technology, order fulfillment, customer service and selected manufacturing activities.	Packaging for retail items, outbound transportation, freight bill payment, and inbound transportation.	Outbound transportation, warehousing, inbound transportation, asset maintenance, information technology and selected manufacturing activities.	Outbound transportation, inbound transportation, warehousing, distribution, private fleet assets and information technology.
What problems were you trying to solve by outsourcing?	High labor costs.	Control of large transportation and logistics network.	High capital expenditures & labor costs.	Costly up-to-date technology, capacity, performance, staffing, lack of expertise and large capital expenses.	Technology and performance efficiencies.
What concerns do you have about outsourcing?	Lack of control.	Selecting the right provider.	Process and control management.	Exposure, control and knowledge transfer.	Control and effectiveness.
What factors influenced your decision to outsource?	Customer perceptions.	Loss of internal expertise in the functional area.	Financial issues.	Cost, workload, knowledge, time and equipment expenditures.	Competitive threats.
What were your goals and objectives when you started outsourcing?	Maintain product and service quality.	Cost reduction.	Maintain competitive position by reducing cost and labor expense.	Cost reduction, improved knowledge and reducing labor costs.	Enhance technology, reduce costs, share risks, leverage multi client opportunities.
Did you understand what you were outsourcing well enough to incorporate that function into your business?	Yes	No	Yes	Yes	Yes
Were outside experts involved in the decision to outsource?	No	No	No	No	No
What were the risks of outsourcing?	Loss of control.	Loss of control and failure.	Product quality, delivery performance, flexibility.	Product quality, cost and flexibility.	None, needed a step change improvement.
What results did you expect from outsourcing? Did you achieve them?	Improved information and process control. Yes.	Improved metrics, technology and process. Yes.	Lower costs. Yes.	Improved quality, knowledge transfer, lower cost and improved performance. Not always.	Network optimization and enhanced information capabilities. Yes.
What barriers impeded your outsourcing decision?	Getting providers to share financial information.	Internal organization issues. Turf and silo's.	3PL selection - finding a fit.	Control, quality and human resources.	Definition of the project.
How was outsourcing introduced?	Parts packaging and distribution.	Gap analysis.	Immediate with no transition.	Had some project specific past experiences.	Identification by functional area that resources and outside skills were needed to achieve goals.
What type of leadership was required to implement the outsourcing program?	Senior leadership.	Top down.	Not important.	Top down directive.	Structured approach by the functional area.
Were providers included in the planning process?	Yes	Yes	Yes	Yes	Yes
Did you perform an initial assessment of current operations before you embarked on the process?	Yes	Yes	Yes	Yes	Yes
What benchmarks/models did you use to establish goals?	Other internal operations outsourced 3-4 years ago, customer surveys and industry trade info.	Professional knowledge and experience.	None, an internally driven decision.	Industry standards, bids and past experience.	Industry standards, current literature and technical research studies.
How is outsourcing internally evaluated by your company?	Multiple internal scorecards and measures.	Rigid metrics written into the contract.	Performance measures, fill rate and on time deliveries.	By the users of the service - based on product quality, performance, cost.	Cross functional team.

Table 2: 3PL Survey Responses for the Establishment of Goals and Objectives		
Survey Questions	Small Provider	Large Provider
What outsourcing services do you provide?	Outbound transportation, Inbound transportation, freight consolidation/distribution, cross-docking, information technology.	Outbound transportation, freight bill payment, warehousing, inbound transportation, freight consolidation/distribution, cross-docking, asset maintenance, traffic management/fleet operations & product assembly.
How do you target clients?	Based on geography and commodity.	Based on internal targeted research.
What factors influenced your decision to participate in an RFP/RFQ?	Core competence, size, location.	Size, complexity, ability to influence change and sole source issues.
Rank typical goals of outsourcing (1=high; 5=low)		
Cost Reduction	1	1
Labor issues	4	N/A
Competitive Issues	2	2
Performance Improvement	1	1
Were outside experts involved in the client's decision to outsource?	No	Often
What benchmarks are used to establish goals?	University research, quest for quality work, industry standards.	Competitive situations, own experience, industry standards.
What are the risks of outsourcing?	Loss of control	Insufficient research, inaccurate data, getting it wrong.
What results do you typically achieve?	Lower costs and improved service.	Specific Key Performance Indicators.
What barriers impeded your outsourcing decision?	Insufficient volumes to operate and poor economy.	Technological limitations in overseas countries and lack of mature international transportation network.
Do you retain client's existing carriers in the new process?	Limited number.	Generally a blended solution - continuity is important.
Did you perform an initial assessment of current operations before you embarked on the process?	Evaluate electronic information capabilities and quality measurement program.	Yes, sent in two different swot teams to learn as much as they can, then compare notes.
How is outsourcing performance measured?	Four performance measures with metrics and one subjective "responsiveness" measurement.	Contract terms, gain and pain sharing and Key Performance Indicators.

Table 3: DOT Survey Responses for the Establishment of Goals and Objectives

Survey Questions	Agency / Division 1	Agency / Division 2	Agency / Division 3	Agency / Division 4	Agency / Division 5	Agency / Division 6
What does your agency outsource? (Estimated expenditure / Percent of revenue)	Fleet Management (5%), Asset Maintenance (25%), Information Reporting (5%), Information Technology (5%), Inventory Management (1%).	Nothing Outsourced.	Material Distribution ($88,643; 4% of warehouse budget), Information Technology ($12,000,000; 32%).	Warehousing and Material Distribution.	Nothing Outsourced.	Asset Maintenance ($90,000,000; 7%), Information Technology ($4,500,000; <1%).
Rank the barriers that impact your ability to outsource (1=low; 5=high).						
Government Regulations	5	2	*	3	1	1
Labor Agreements	5	4	*	3	2	2
Quality Constraints	1	3	*	4	4	3
Control of Output	2	2	*	4	4	3
Current Workload	3	1	*	5	3	2
Outsourcing Expertise	1	3	*	4	1	1
Project Size/Scope	3	4	*	4	4	2
Rank the typical goals and objectives in outsourcing (1=highest; 5=lowest).						
Cost Reduction	2	2	*	2	2	4
Labor Issues	5	4	*	1	1	1
Safety/Risk	3	3	*	4	4	3
Performance Improvement	1	1	*	3	5	2
Other	*	*	*	*	*	*
Other (specified)	*	*	*	*	*	*
What do you consider to be the top three risks of outsourcing?	Political opposition, labor issues and quality.	Loss of critical core competencies, cost of controls and quality of outputs - competitive market.	*	Loss of quality control, degradation of skills and increased cost.	Quality and control.	Quality control, additional cost and procurement time.
Were outside experts involved in the decision to outsource?	No	Yes	Yes	Yes	Yes	No
What was the quality of the results achieved the outsourcing project?	Higher quality than work performed by the State.	Lower quality than work performed by the State.	Equivalent to work performed by the State.	Equivalent to work performed by the State.	Lower quality than work performed by the State.	Equivalent to work performed by the State.
Did you use the following benchmarks to establish goals?						
Benchmarks discussed in logistics studies done by Universities.	No	Yes	No	No	No	No
Private industry benchmarks and key performance indicators.	No	No	No	No	No	No
Goals & Measurements discussed in trade magazines and web sites.	No	No	No	No	No	No
Previous contract history within State DOT framework.	Yes	Yes	Yes	Yes	Yes	Yes
Benchmarks suggested by providers.	Yes	No	No	No	Yes	No
Goals established by regulation.	Yes	Yes	No	No	Yes	No

Table 3 Continued: DOT Survey Responses for the Establishment of Goals and Objectives

Survey Questions	Agency / Division 7	Agency / Division 8	Agency / Division 9	Agency / Division 10	Agency / Division 11	Agency / Division 12
What does your agency outsource? (Estimated expenditure / Percent of revenue)	Nothing Outsourced.	Information Technology ($700,000)	Warehousing, Material Distribution and Inventory Management.	Professional & Technical Consultant Services ($43,000,000).	Information Technology ($1,000,000; 0.2%).	Information Technology ($2,700,000), Inventory Management ($3,750,000), Construction & Design Engineering ($108,800,000).
Rank the barriers that impact your ability to outsource (1=low; 5=high).						
Government Regulations	5	4	4	1	1	1
Labor Agreements	5	4	1	1	4	1
Quality Constraints	3	1	3	3	3	3
Control of Output	3	1	1	1	3	3
Current Workload	5	3	2	5	3	3
Outsourcing Expertise	2	3	3	3	3	2
Project Size/Scope	3	3	3	1	4	3
Rank the typical goals and objectives in outsourcing (1=highest; 5=lowest).						
Cost Reduction	2	2	1	3	3	4
Labor Issues	2	4	4	5	5	5
Safety/Risk	1	3	2	4	4	2
Performance Improvement	2	1	5	2	2	3
Other	*	*	*	1	1	1
Other (specified)	*	*	*	Available work force.	Production.	Shortage of in-house staff.
What do you consider to be the top three risks of outsourcing?	Long-term cost overrun, response to emergency situations and direct control over finished product.	Escalating prices in future years and relying on consultants rather than developing skills.	Loss of future expertise, loss of quality control and extra inspection costs.	Quality, cost and time.	Quality, cost and schedule.	Quality control, timely product delivery and costs.
Were outside experts involved in the decision to outsource?	No	Yes	No	No	No	No
What was the quality of the results achieved the outsourcing project?	Equivalent to work performed by the State.	Higher quality than work performed by the State.	Equivalent to work performed by the State.	Lower quality & equivalent to work performed by the State.	Equivalent to work performed by the State.	Lower quality than work performed by the State.
Did you use the following benchmarks to establish goals?						
Benchmarks discussed in logistics studies done by Universities.	No	No	No	No	No	No
Private industry benchmarks and key performance indicators.	No	No	No	No	No	No
Goals & Measurements discussed in trade magazines and web sites.	No	No	No	No	No	No
Previous contract history within State DOT framework.	Yes	No	Yes	Yes	Yes	Yes
Benchmarks suggested by providers.	No	No	No	No	No	Yes
Goals established by regulation.	No	Yes	No	No	Yes	Yes

Table 3 Continued: DOT Survey Responses for the Establishment of Goals and Objectives

Survey Questions	Agency / Division 13	Agency / Division 14	Agency / Division 15	Agency / Division 16	Agency / Division 17	Agency / Division 18
What does your agency outsource? (Estimated expenditure / Percent of revenue)	*	Appraisal Services ($1,000,000).	Asset Maintenance, Information Technology ($50,000,000 in IT).	*	*	Asset Maintenance ($1,000,000), Road/Bridge Construction ($200,000,000)
Rank the barriers that impact your ability to outsource (1=low; 5=high).						
Government Regulations	5	5	5	4	*	1
Labor Agreements	3	3	5	2	*	2
Quality Constraints	3	4	1	3	*	4
Control of Output	2	4	1	*	*	4
Current Workload	1	3	4	*	*	3
Outsourcing Expertise	1	4	3	*	*	3
Project Size/Scope/Control	2	4	3	*	*	3
Rank the typical goals and objectives in outsourcing (1=highest; 5=lowest).						
Cost Reduction	*	3	3	5	*	1
Labor Issues	*	4	5	2	1	5
Safety/Risk	*	5	1	3	*	5
Performance Improvement	*	2	2	3	*	2
Other	5	1	4	*	*	*
Other (specified)	Supplement staff.	Lack of internal resources.	Ease in hiring contractors.	*	*	*
What do you consider to be the top three risks of outsourcing?	Paying too much, loss of direct project control and lower quality.	Substandard quality, untimely delivery and cost increase.	Contract performance, small number of vendors to choose from and higher costs than in house expertise.	Poor quality and insufficient budgets.	*	Quality, responsiveness to public and loss of internal expertise.
Were outside experts involved in the decision to outsource?	No	No	Yes	Don't Know	*	*
What was the quality of the results achieved the outsourcing project?	Equivalent to work performed by the State.	Equivalent to work performed by the State.	Equivalent to work performed by the State.	Lower, equivalent & higher than work performed by the State.	Equivalent to work performed by the State.	*
Did you use the following benchmarks to establish goals?						
Benchmarks discussed in logistics studies done by Universities.	*	No	No	*	No	*
Private industry benchmarks and key performance indicators.	*	No	No	*	No	*
Goals & Measurements discussed in trade magazines and web sites.	*	No	No	*	No	*
Previous contract history within State DOT framework.	*	Yes	Yes	*	Yes	*
Benchmarks suggested by providers.	*	No	No	*	No	*
Goals established by regulation.	*	No	Yes	*	No	*

Table 3 Continued: DOT Survey Responses for the Establishment of Goals and Objectives

Survey Questions	Agency / Division 19	Agency / Division 20	Agency / Division 21	Agency / Division 22	Agency / Division 23	Agency / Division 24
What does your agency outsource? (Estimated expenditure / Percent of revenue)	Nothing Outsourced.	Nothing Outsourced.	Information reporting (less than 5%).	Nothing Outsourced.	Nothing Outsourced.	Nothing Outsourced.
Rank the barriers that impact your ability to outsource (1=low; 5=high).						
Government Regulations	2	4	2	5	3	2
Labor Agreements	4	4	5	3	3	3
Quality Constraints	1	2	1	3	1	2
Control of Output	1	2	4	4	1	2
Current Workload	2	3	3	2	3	2
Outsourcing Expertise	2	2	1	3	1	1
Project Size/Scope	2	2	3	4	1	2
Rank the typical goals and objectives in outsourcing (1=highest; 5=lowest).						
Cost Reduction	5	2	2	1	1	3
Labor Issues	4	1	4	4	1	4
Safety/Risk	3	3	3	3	2	5
Performance Improvement	2	4	1	2	2	2
Other	*	*	*	*	*	
Other (specified)	*	*	*	*	Complete maintenance work needed on highways	
What do you consider to be the top three risks of outsourcing?	Union concerns, poor quality, and timeliness.	Time, financial, and availability of crews.	Time, labor, and Managing/overseeing outside firms.	Quality control, scheduling, and cost.	Poor performance, higher cost, projects not complete on time.	Loss of in-house expertise; construction market diminishing and costs increasing; quality control.
Were outside experts involved in the decision to outsource?	No	No	No	No	No	No
What was the quality of the results achieved the outsourcing project?	Higher quality than work performed by the State.	Higher quality than work performed by the State.	Equivalent to work performed by State.	Depends on project.	Higher quality than work performed by the State.	Equivalent to work performed by State.
Did you use the following benchmarks to establish goals?						
Benchmarks discussed in logistics studies done by Universities.	*	*	*	Yes	*	*
Private industry benchmarks and key performance indicators.	*	Yes	*	Yes	*	Yes
Goals & Measurements discussed in trade magazines and web sites.	*	Yes	*	*	*	*

Table 3 Continued: DOT Survey Responses for the Establishment of Goals and Objectives

Survey Questions	Agency / Division 25	Agency / Division 26	Agency / Division 27	Agency / Division 28	Agency / Division 29	Agency / Division 30	Agency / Division 31
What does your agency outsource? (Estimated expenditure / Percent of revenue)	Nothing Outsourced.	Nothing Outsourced.	Nothing Outsourced.	Asset maintenance ($1,500,000; 2%); Information technology ($200,000; 1%); and Paving operations ($13,000,000; 10%).	Road maintenance; Information technology.	Nothing Outsourced.	Nothing Outsourced.
Rank the barriers that impact your ability to outsource (1=low; 5=high).							
Government Regulations	5	2	1	2	2	2	*
Labor Agreements	5	5	5	5	2	1	*
Quality Constraints	4	1	1	2	4	3	*
Control of Output	3	1	1	3	4	3	*
Current Workload	5	2	3	2	1	3	*
Outsourcing Expertise	5	4	1	4	4	2	*
Project Size/Scope	2	1	1	2	3	2	*
Rank the typical goals and objectives in outsourcing (1=highest; 5=lowest).							
Cost Reduction	1	1	2	1	1	2	*
Labor Issues	4	5	4	5	2	4	*
Safety/Risk	3	1	3	4	4	4	*
Performance Improvement	2	1	1	3	3	3	*
Other	*	*	*	*	*	*	*
Other (specified)	*	*	*	Quality of work.	*	*	*
What do you consider to be the top three risks of outsourcing?	Labor relations, quality, cost.	Control of completion, labor, and quality control.	Cost, control of outcome, quality of work.	Loss of expertise, investing costs, and quality and timeliness.	Loss of control, quality of job, and timeliness of completion.	Quality control, cost control, and outsourcing too much.	*
Were outside experts involved in the decision to outsource?	No	No	No	No	No	No	*
What was the quality of the results achieved the outsourcing project?	Higher quality than work performed by the State.	Equivalent to work performed by State.	Equivalent to work performed by State.	Equivalent to work performed by State.	Equivalent to work performed by State.	Equivalent to work performed by State.	*
Did you use the following benchmarks to establish goals?							
Benchmarks discussed in logistics studies done by Universities.	*	*	*	*	Yes	Yes	*
Private industry benchmarks and key performance indicators.	Yes	*	*	*	Yes	No	*
Goals & Measurements discussed in trade magazines and web sites.	*	*	*	*	Yes	Yes	*
Previous contract history within State DOT framework.	Yes	Yes	Yes	Yes	Yes	Yes	*
Benchmarks suggested by providers.	*	*	Yes	*	Yes	Yes	*
Goals established by regulation.	*	Yes	*	Yes	Yes	Yes	*

APPENDIX F

Information and Analysis Systems Survey Response Tables

Table 4: Manufacturing Company Survey Responses for Information and Analysis Systems

Survey Questions	Motorcycle Manufacturer	Auto Manufacturer	Small Engine Manufacturer	Asphalt Company	Appliance Manufacturer
What information did you need to begin the process?	200 measures of performance.	Good scope of the process.	Competitive quotes.	Understanding of the process, costs and project definition.	Good definition of the project scope and expectations.
Where did the information reside?	Internally and with suppliers (carriers) and vendors.	Internally with carriers, suppliers and vendors.	Spreadsheet	With internal associates familiar with the work.	Across many internal systems and with providers.
Was the data available, if not what was missing and how did you find it?	Yes. It was an intense process.	50% was available. Claims and return information missing - found by manual collection and review.	Some was unknown - left to provider to define.	Yes. Continuous dialogue during implementation.	Yes. New measures were introduced.
What information system do you use to manage the data?	Multiple internal programs.	Providers.	SAP.	Critical path, Gant charts, QA sampling, site monitoring.	Gap analysis, Gant charts, Six Sigma Quality measurements.
How was the data collected?	By internal process owners.	Electronically by vendors and customers.	Manually and electronically	Supplier, vendor and project manager.	By the provider collecting information from suppliers, vendors and internal customers.
Who evaluates the information collected?	Internal process owners and managers.	Provider and internal process owners.	Managers and analysts.	Project Managers, team and steering committee.	Senior management team of provider and manufacturer.
How do you analyze the data?	Measure performance versus goals. Current Performance versus history.	Predictive, exception and tolerance	Monitor more than analyze. Compared competitive bids.	Comparison to industry standards, specification, trend analysis.	Comparison to industry standards. Performance against plan.
What changed in the data collection process?	Improved electronic collection and analysis.	Moved everything to a single system.	Nothing.	Vendors supply more data electronically.	More electronic integration.
What would you do differently?	Recognize the importance of relationship building with outsource provider.	Determine what defines success. Streamline measurement process.	Careful evaluation and comparison of variable cost drivers.	Tighter project definitions, more up front planning, work more closely with vendors, regular review meetings.	Make the outsourcing decision earlier.

Table 5: 3PL Survey Responses for Information and Analysis Systems

Survey Questions	Small Provider	Large Provider
Was the data available, if not what was missing and how did you find it?	Strives to link carriers electronically and establish reporting standards.	Must understand the data first, then overlay the source data.
If the information came from multiple sources how did you reconcile it?	Carrier feedback and review sessions. Comparison of carrier data and order entry system.	Need to understand data source, how and why the measurement is being used. Use best practices in industry to identify and reconcile.
How do you analyze performance?	Performance versus expectations.	Independent measures.
Who provides the data?	Carriers and customers.	Carriers and customers.
Who owns the information?	Outsource provider retains information on confidential basis.	Typically provider owns the data but it is becoming increasingly more collaborative.

Table 6: DOT Survey Responses for Information and Analysis Systems						
Survey Questions	Agency / Division 1	Agency / Division 2	Agency / Division 3	Agency / Division 4	Agency / Division 5	Agency / Division 6
What information did you need to begin the outsourcing process?	Past performance and cost of public sector work.	Industry's capacity to handle the work. Experienced staff & equipment quality and capacity.	AASHTO contracting guidelines.	*	*	Needs determination, requirements definition, and internal cost estimate.
Has your access to information Improved?	Yes	Yes	Yes	No	No	Yes

Table 6 Continued: DOT Survey Responses for Information and Analysis Systems						
Survey Questions	Agency / Division 7	Agency / Division 8	Agency / Division 9	Agency / Division 10	Agency / Division 11	Agency / Division 12
What information did you need to begin the outsourcing process?	Research of other states, expenditures, labor issues, etc.	For maintenance, we needed to prove that it was more cost effective to outsource than doing the work in-house. The contracts were competitively bid.	Clear specifications of scope of work, contractor qualifications, and clear scope of responsibilities.	Have been doing it for years.	A reliable analysis of human resource demand.	Updated process & procedure manuals, and in-house workload and expertise
Has your access to information Improved?	N/A	Yes	Yes	No	Yes	Yes

Table 6 Continued: DOT Survey Responses for Information and Analysis Systems						
Survey Questions	Agency / Division 13	Agency / Division 14	Agency / Division 15	Agency / Division 16	Agency / Division 17	Agency / Division 18
What information did you need to begin the outsourcing process?	Federal laws & regulations, state laws, policies, etc.	List of available and interested appraisers.	Size of project and time for completion.	*	*	*
Has your access to information Improved?	No	N/A	Yes	Don't Know	*	*

Table 6 Continued: DOT Survey Responses for Information and Analysis Systems

Survey Questions	Agency / Division 19	Agency / Division 20	Agency / Division 21	Agency / Division 22	Agency / Division 23	Agency / Division 24
What information did you need to begin the outsourcing process?	*	What is the desired final product?	*	Who, what, where, when, and how of project.	*	*
Has your access to information Improved?	*	Yes	Yes	No	Yes	Yes

Table 6 Continued: DOT Survey Responses for Information and Analysis Systems

Survey Questions	Agency / Division 25	Agency / Division 26	Agency / Division 27	Agency / Division 28	Agency / Division 29	Agency / Division 30	Agency / Division 31
What information did you need to begin the outsourcing process?	Cost comparisons and in-house capacity/ability.	Cost	Cost per unit	Qualified people who understand our state system.	MDOT's cost of doing business and suggested contract price to outsource.	Work load projections, list of qualified and available consultants, in-house work projection, and funding projections.	*
Has your access to information Improved?		No	No	No	No	N/A	*

APPENDIX G

Development of Plans and Programs Survey Response Tables

Table 7: Manufacturing Company Survey Responses for the Development of Plans and Programs

Survey Questions	Motorcycle Manufacturer	Auto Manufacturer	Small Engine Manufacturer	Asphalt Company	Appliance Manufacturer
How did you select a provider?	Survey of industry trade information.	Request for Proposal.	References, site visits and a review process.	Industry reputation, personal experience and interviews.	Series of intensive interviews after initial qualification scan.
Who participated in the development of the Request For Proposal?	Director and Vice President.	Outside consultant and senior managers.	Cross functional internal team.	Project manager, consultant, vendor.	Cross functional management team.
What factors were included in the RFP?	Financial history, references, project work.	Size, reputation, expertise.	Price and delivery standards.	Cost, performance, equipment, experience, skill sets and management plan.	Skills set, size, track record.
Weigh the factors that influenced your provider selection. (1= low, 5=high)					
Financial stability	5	5	3	3	5
Business qualifications	4	5	4	5	5
Management depth and strength	4	3	3	4	4
Reputation/references	4	5	2	4	5
Strategic direction	3	4	1	5	3
Physical equip. & capabilities	5	3	4	4	4
Operational excellence	4	4	3	5	5
Information technology	5	4	1	5	4
Cost	5	3	5	4	3
Quality	5	4	3	5	4
Chemistry and Compatibility	3	5	4	4	5
How many providers were reviewed?	3 to 5	15 pre screen, 5 final	3	1 to 15	8
How did you evaluate the providers, what criteria did you use?	Benchmarks of other similar companies in the industry.	Interviews, RFP and presentations.	Cost and performance.	Multiple interviews and reference checks.	RFQ and interviews.
Who was involved in defining the scope of the work? How did it change?	Director.	Internal team.	Sales and purchasing. The process got more expansive.	Project manager and project team.	Cross functional management team.
How were the expectations defined?	By the manufacturer.	Statement of expectations.	Performance standards in the contract.	Statements of expectations and in the contracts.	Statements of expectations and in the contracts.

Table 7Continued: Manufacturing Company Survey Responses for the Development of Plans and Programs

Survey Questions	Motorcycle Manufacturer	Auto Manufacturer	Small Engine Manufacturer	Asphalt Company	Appliance Manufacturer
How were policies and procedures established?	By the manufacturer.	Unique policies were mutually defined.	New unique processes were developed jointly.	Unique, developed for the specific project.	Tailored to the specific project with respect to industry data and trends.
How do you measure the provider's performance?	Providers collects the data and reports. Mfg also measures performance.	Metrics and phases.	Delivery performance.	Quality, performance and communication.	Detailed performance measurement and reviews.
How often do you review the provider's performance?	Some functions weekly, some monthly, some quarterly and annually.	Daily cost review, weekly during implementation, monthly for projects going well. Quarterly for control purposes.	Continuously monitor.	Depends on project. Nothing specific.	Daily, weekly and monthly. Depends upon aspect of performance being measured. Exception areas are measured more frequently.
Who provides the data for measurement?	Carriers, suppliers, vendors.	Carriers, provider and on site personnel.	Manufacturer.	Project team.	Provider and vendors.
Are there friction points? If so where?	Establishment of written expectations.	New measurements and any changes.	Back order process.	Integration of staffing and human resources.	No.
Are there contractual incentives/penalties for performance?	Yes	Yes, phased over time.	Yes	No	Yes
Do you participate in gain sharing?	Yes	Yes	Yes, back order	Occasionally	Yes
How are exceptions managed?	Daily.	Empowered managers.	Cooperatively & crisis management.	Working together as a team.	Collaboratively.
What is the term of your relationship?	Multi year.	3 year with renewal.	3 year with renewal.	Mostly year to year.	Multi year.
Was there a transition team?	Yes	Yes	Yes	No	Yes
How was the transition managed? How long did it take?	By crossfunctional team over several months.	Needed a formal team dedicated to process. Took one year.	Cross functional team.	Depends on the project scope.	Lead by provider over several months.
Did the provider introduce new programs?	Yes	Yes	Yes	Yes	Yes
How do you manage the provider?	Contractually.	Contract and statement of expectations.	Monitoring.	Meetings.	Regular reviews versus contract expectations.
What are the results of outsourcing?	Customer satisfaction and cost reductions.	Reduced costs and improved cycle time.	New ideas and expanded skills, reduced management time.	Providers tend to grow into additional project areas. Staff can become dependent on outside consultants.	Improved cycle times, information visibility, reduced costs.
Would you consider outsourcing other areas in the future?	Yes	Personality driven by current leadership.	Yes	Yes	Yes
How has outsourcing changed your business?	Improved quality, lower cost, better information system.	Improved visibility, capability, flexibility.	More responsive, leaner, allows management to focus on core business.	Improved performance and efficiencies.	Improved competitive position within the industry.
What did you learn in the outsourcing process?	Project is time intense, provider brings additional skill sets and resources to the process.	About people, change and attitude.	About packaging and process management.	Expectation setting is critical. Initial requirements must be well defined. Change control process is	Establishment of a positive relationship and trust is critical to the success of the project.

Table 8: 3PL Survey Responses for the Development of Plans and Programs		
Survey Questions	Small Provider	Large Provider
How did you select and review carriers and subcontractors?	Quality program factors.	Consider who is best positioned to deliver. Look for best in class.
Weigh the factors that influenced your provider selection? (1= low, 5=high)		
Financial stability	5	4
Business qualifications	3	4
Management depth and strength	3	5
Reputation/references	3	4.5
Strategic direction	4	3.5
Physical equipment and capabilities (site visit?)	5	5
Operational excellence	5	4.5
Information technology	4	4
Cost	4	4.5
Quality	5	4
Chemistry and Compatibility	4	3.5
How are expectations defined?	Core Carrier program, Policies and Procedures, Contract.	Negotiated scope of work. Contract. Key Performance Indicators.
How are policies and procedures established?	Unique policies set up to reflect client interest based on Provider standards.	Very defined integrating customer and provider minimum standards.
How do you measure carrier performance?	Electronically, based on five areas of performance.	cost, on-time, information accuracy and speed of feedback.
Who provides the data for measurement?	Carrier and Provider	Carriers provide data and self diagnosis, Provider reconciles versus order entry.
How often do you review the provider's performance?	Part of daily process, formally on a quarterly basis with annual review.	Weekly and monthly, varies based on event basis and supply chain complexity.
Are there friction points? If so where?	Optimal service is expected, price issues are the most common point of contention.	Often during performance reviews. Need to understand what is missing.
How do you manage exceptions?	Immediate identification on the website, managed through a CRM system.	Solutions are based on a snapshot in time. Empowerment at the shop floor is critical.
What recommendations would you have for State DOT's considering outsourcing?	Relationship is critical. Communication is essential. Never works as originally intended. Maintain on-going dialogue.	Do not fire out 35 RFP's. Consider your goal carefully, define deliverables. Identify key people within the organization.

Table 9: DOT Survey Responses for the Development of Plans and Programs

Survey Questions	Agency / Division 1	Agency / Division 2	Agency / Division 3	Agency / Division 4	Agency / Division 5	Agency / Division 6
Do you give any of the following performance incentives for superior performance?						
Monetary award	Yes	No	No	No	Yes	Yes
Honorary award	No	No	Yes	No	No	No
Future contract preference	No	No	No	Yes	No	Yes
More business	No	Yes	Yes	Yes	No	No
Are the following items included on your scorecard?						
On time performance	Yes	No	Yes	Yes	Yes	Yes
Product quality	Yes	Yes	Yes	Yes	Yes	Yes
Administrative accuracy	No	No	Yes	Yes	Yes	Yes
Budget accuracy	Yes	No	Yes	Yes	Yes	Yes
Capacity and capability to perform work	Yes	Yes	Yes	Yes	Yes	Yes
Responsiveness	No	Yes	Yes	Yes	Yes	Yes
How often is performance measured?	Monthly	Monthly	Annually	At key project milestones.	Weekly	Monthly
Weigh the factors that influenced your provider selection (1=low impact, 5=high impact, 0=no impact).						
Financial stability	3	5	4	4	3	3
Business qualifications	5	4	5	5	5	5
Reputation/references	5	0	3	5	5	3
Strategic direction	0	0	1	3	0	1
Physical equip. & capability	1	4	5	3	0	4
Operational excellence	5	3	4	5	0	2
Information technology	0	3	2	3	3	2
Cost	4	4	5	4	4	3
Quality	5	3	4	5	5	4
Attitude and compatibility	2	3	3	4	5	3
Safety record	5	2	3	3	2	0
Size of firm	3	3	2	4	1	2
Other business contracts	1	4	5	4	4	3
Previous experience w/3PL	3	4	4	5	5	4
How long did it take to define expectations.	Approximately one year.	Varies with project type & services being outsourced - 6 mths. to 1 year.	A five year process.	*	Still in process.	Varies with the complexity of the services to be provided.
How detailed were the initial expectations?	Specifically documented standards with performance ratings and calibration.	*	Loosely structured naming key areas of desired performance & quality.	Open working relationship with end deliverable defined by budget and time.	Loosely structured naming key areas of desired performance & quality.	Specifically documented standards with performance ratings and calibration.
How were policies and procedures established?	Used existing policies.	*	Unique policies developed to manage the outsourced task.	Unique policies developed to manage the outsourced task.	Used existing policies.	Used existing policies.
Name two common points of friction when outsourcing.	Political and labor opposition.	*	Contractor claims from difference of opinion and agreeing on quality of final product.	Establishing appropriate oversight and resolving disputes over performance.	Consultant direction and detailed specifications.	Employee resistance and concern for their jobs and workload pressures with limited staff.
What three areas do you feel should be outsourced?	Maintenance, asset management and legal work.	*	Bridge painting, asphalt overlays and row mowing.	Research, construction and rest area management.	Rest area maintenance, mowing and striping.	Heavy and/or specialized maintenance activities, engineering investigations and IT development

Table 9 Continued: DOT Survey Responses for the Development of Plans and Programs

Survey Questions	Agency / Division 7	Agency / Division 8	Agency / Division 9	Agency / Division 10	Agency / Division 11	Agency / Division 12
Do you give any of the following performance incentives for superior performance?						
Monetary award	No	No	Yes	No	Yes	No
Honorary award	Yes	No	Yes	No	No	No
Future contract preference	No	No	No	No	No	Yes
More business	No	No	No	Yes	No	Yes
Are the following items included on your scorecard?						
On time performance	Yes	Yes	Yes	Yes	Yes	Yes
Product quality	Yes	Yes	Yes	Yes	Yes	Yes
Administrative accuracy	No	Yes	Yes	No	No	No
Budget accuracy	No	Yes	No	Yes	No	Yes
Capacity and capability to perform work	Yes	Yes	Yes	Yes	Yes	Yes
Responsiveness	Yes	Yes	Yes	Yes	Yes	Yes
How often is performance measured?	Weekly	Weekly	Annually	Annually	Monthly	Monthly
Weigh the factors that influenced your provider selection (1=low impact, 5=high impact, 0=no impact).						
Financial stability	5	5	3	0	3	1
Business qualifications	5	5	5	5	5	5
Reputation/references	4	5	4	5	4	4
Strategic direction	0	0	2	0	1	2
Physical equip. & capability	4	5	4	2	3	4
Operational excellence	4	5	3	4	3	4
Information technology	0	0	2	5	2	3
Cost	5	5	3	5	5	2
Quality	5	5	4	5	5	5
Attitude and compatibility	3	0	4	5	3	5
Safety record	3	5	3	4	3	4
Size of firm	0	0	2	3	1	3
Other business contracts	3	0	0	4	4	4
Previous experience w/3PL	4	0	3	5	3	4
How long did it take to define expectations.	*	*	This is an ongoing process.	Usually one or two meetings.	Varies with job.	This is an ongoing process that we are continuing to work on.
How detailed were the initial expectations?	Open working relationship with end deliverable defined by budget and time.	Specifically documented and measured performance standards with financial penalties & incentives.	Loosely structured naming key areas of desired performance & quality.	Open working relationship with end deliverable defined by budget and time.	Loosely structured naming key areas of desired performance & quality.	Loosely structured and measured performance standards with financial penalties & incentives.
How were policies and procedures established?	Used existing policies.	Used existing policies.	Used existing policies.	Used existing policies.	Used existing policies.	Used existing policies.
Name two common points of friction when outsourcing.	Increased inspections and administrative and labor issues.	Union opposition and potential political ramifications to outsourcing.	Contract specifications, coordination between owner and prime contractor & subcontractors.	Quality control and cost.	Scope of services (cost) and schedule.	Communication regarding quality control and conformance to DOT standards.
What three areas do you feel should be outsourced?	To assist state forces when workload requires and when specialized equip. is needed that the state does not own.	Drawbridge operation, mowing and sweeping, and police details/traffic control.	Highway and building constructions, highway and building design and computer system design and execution.	Projects which require special expertise, large projects with tight timeframes and projects when staff not available.	Engineering & related services, transportation project construction and technology development.	Specialty items where we do not have the expertise and to meet demands when there are peaks in funding.

Table 9 Continued: DOT Survey Responses for the Development of Plans and Programs						
Survey Questions	Agency / Division 13	Agency / Division 14	Agency / Division 15	Agency / Division 16	Agency / Division 17	Agency / Division 18
Do you give any of the following performance incentives for superior performance?						
Monetary award	No	No	No	*	*	*
Honorary award	No	No	No	*	*	*
Future contract preference	Yes	No	Yes	*	*	*
More business	Yes	Yes	No	*	*	*
Are the following items included on your scorecard?						
On time performance	Yes	Yes	Yes	Yes	*	*
Product quality	Yes	Yes	Yes	Yes	*	*
Administrative accuracy	No	No	No	Yes	*	*
Budget accuracy	yes	No	Yes	Yes	*	*
Capacity and capability to perform work	Yes	Yes	Yes	Yes	*	*
Responsiveness	Yes	Yes	No	Yes	*	*
How often is performance measured?	Monthly	When project is completed.	Weekly	*	*	*
Weigh the factors that influenced your provider selection (1=low impact, 5=high impact, 0=no impact).						
Financial stability	2	4	3	5	*	*
Business qualifications	5	5	5	5	5	5
Reputation/references	3	5	4	*	5	5
Strategic direction	0	3	1	*	*	*
Physical equip. & capability	1	2	5	*	*	*
Operational excellence	3	5	3	*	*	*
Information technology	2	2	3	*	*	*
Cost	2	5	5	5	*	*
Quality	4	5	4	5	*	*
Attitude and compatibility	3	5	4	*	*	*
Safety record	1	2	4	*	*	*
Size of firm	2	2	3	*	*	*
Other business contracts	4	2	2	*	*	*
Previous experience w/3PL	5	3	5	*	*	*
How long did it take to define expectations.	*	*	Depends on the size of the project - ranges from days to months of planning.	*	*	*
How detailed were the initial expectations?	Open working relationship with end deliverable defined by budget and time.	Open working relationship with end deliverable defined by budget and time.	Open working relationship with end deliverable defined by budget and time.	*	*	*
How were policies and procedures established?	Unique policies developed to manage the outsourced task.	Used existing policies.	Used existing policies.	*	*	*
Name two common points of friction when outsourcing.	Amount of effort to perform the work and performance of work w/o authorization.	Timely delivery of a quality product and defining what is an acceptable product.	Vendor selection process and differences in opinion in quality performance.	*	*	Quality of work and costs.
What three areas do you feel should be outsourced?	Non-professional services where selection is based on price, where special expertise is required and to meet peaks in workload	Developing a legal description, appraisal services and billboard permit management.	Lawn mowing and snow plowing for DOT buildings, janitorial services and any area DOT lacks on-board expertise.	*	*	Asset management development, ITS development and deployment and disaster planning.

Table 9 Continued: DOT Survey Responses for the Development of Plans and Programs

Survey Questions	Agency / Division 19	Agency / Division 20	Agency / Division 21	Agency / Division 22	Agency / Division 23	Agency / Division 24
Do you give any of the following performance incentives for superior performance?						
Monetary award	Yes	*	*	Yes	*	Yes
Honorary award	*	*	*	*	*	Yes
Future contract preference	*	*	*	*	*	*
More business	*	Yes	*	*	*	Yes
Are the following items included on your scorecard?						
On time performance	Yes	Yes	Yes	Yes	Yes	Yes
Product quality	Yes	Yes	Yes	Yes	Yes	Yes
Administrative accuracy	*	Yes	*	Yes	*	Yes
Budget accuracy	*	Yes	*	Yes	Yes	Yes
Capacity and capability to perform work	*	Yes	Yes	Yes	Yes	Yes
Responsiveness	Yes	Yes	Yes	Yes	Yes	Yes
How often is performance measured?	Monthly	Weekly, Monthly, Quarterly, and Annually	Weekly, Monthly, Quarterly, Annually	Quarterly	Weekly	Varies by type of work.
Weigh the factors that influenced your provider selection (1=low impact, 5=high impact, 0=no impact).						
Financial stability	0	2	1	1	2	4
Business qualifications	0	4	4	4	4	5
Reputation/references	0	4	4	3	1	4
Strategic direction	0	3	1	0	1	3
Physical equip. & capability	0	4	5	3	1	4
Operational excellence	0	4	3	3	1	5
Information technology	0	2	2	1	1	4
Cost	5	3	5	5	5	3
Quality	*	4	4	3	1	5
Attitude and compatibility	0	4	2	1	*	5
Safety record	0	4	1	0	1	3
Size of firm	0	2	1	0	1	3
Other business contracts	0	2	4	1	1	4
Previous experience w/3PL	0	4	3	3	1	4
How long did it take to define expectations.	*	Until the specifications were drafted.	Less than two weeks.	Varies with project.	*	Varies with job.
How detailed were the initial expectations?	Measured performance standards, which carry financial penalties and incentives.	Specifically documented standards with performance rating and calibration.	Specifically documented standards with performance rating and calibration.	Specifically documented standards with performance rating and calibration.	Measured performance standards, which carry financial penalties and incentives.	Specifically documented standards with performance rating and calibration.
How were policies and procedures established?	Used existing policies.	Used existing policies.	Used existing policies.	Used existing policies.	Used existing policies.	Used existing policies.
Name two common points of friction when outsourcing.	Union concerns and timeliness.	Union concerns and management.	Labor union issues and time constraints (lag time between need and securing outside help).	Labor union issues and outsource personnel complaints.	Department purchasing policies control our outsourcing. Some of the policies are restrictive and limit options.	Labor union issues and outsource personnel complaints.
What three areas do you feel should be outsourced?	New construction, maintenance surface improvements, and interstate/limited access signs.	Tree removal, herbicide spraying, and mechanical brush cutting.	Snow removal, paving, and guide rail.	Paving, roadside maintenance, and equipment-painting services.	Surface treatment operations, highway lighting maintenance, and line painting.	Paving, roadside maintenance, and equipment-painting services.

Table 9 Continued: DOT Survey Responses for the Development of Plans and Programs

Survey Questions	Agency / Division 25	Agency / Division 26	Agency / Division 27	Agency / Division 28	Agency / Division 29	Agency / Division 30	Agency / Division 31
Do you give any of the following performance incentives for superior performance?							
Monetary award	Yes	Yes	*	Yes	Yes	No	*
Honorary award	*	Yes	*	Yes	Yes	Yes	*
Future contract preference	*	*	*	*	*	Yes	*
More business	*	*	*	*	*	No	*
Are the following items included on your scorecard?							
On time performance	Yes	Yes	Yes	Yes	Yes	Yes	*
Product quality	Yes	Yes	Yes	Yes	Yes	Yes	*
Administrative accuracy	*	*	Yes	*	Yes	Yes	*
Budget accuracy	Yes	*	Yes	*	Yes	Yes	*
Capacity and capability to perform work	Yes	Yes	Yes	Yes	Yes	Yes	*
Responsiveness	Yes	Yes	Yes	Yes	Yes	Yes	*
How often is performance measured?	Monthly	Weekly, Quarterly	Varies by type of work.	Varies by type of work.	Varies by type of work.	Annually	*
Weigh the factors that influenced your provider selection (1=low impact, 5=high impact, 0=no impact).							
Financial stability	0	3	1	1	5	5	*
Business qualifications	0	5	5	4	5	5	*
Reputation/references	0	3	5	3	5	3	*
Strategic direction	0	3	1	0	5	0	*
Physical equip. & capability	0	3	*	3	5	1	*
Operational excellence	0	3	3	3	5	3	*
Information technology	0	3	3	1	5	5	*
Cost	5	5	5	5	5	3	*
Quality	0	5	3	3	5	5	*
Attitude and compatibility	0	3	1	1	5	0	*
Safety record	0	5	1	0	5	1	*
Size of firm	*	3	1	0	3	1	*
Other business contracts	*	3	1	1	5	0	*
Previous experience w/3PL	*	5	1	3	5	2	*
How long did it take to define expectations.	Standard within context specifications and bid package	Varies with job.	One cycle.	Varies with job.	From a few days to a few months depending on job.	N/A	*
How detailed were the initial expectations?	Measured performance standards, which carry financial penalties and incentives	*	Open working relationship with end deliverable defined by budget and time.	*	Measured performance standards, which carry financial penalties and incentives	Open working relationship with end deliverable defined by budget and time.	*
How were policies and procedures established?	Used existing policies.	Used existing policies.	Used existing policies.	Used existing policies.	Unique policies developed to manage the outsourced task	Used existing policies.	*
Name two common points of friction when outsourcing.	Labor union issues.	Contractor must understand the job; cost.	Union acceptance and cost.	Defining work, agreement in changes, and impediments to original schedule	Who ought to be doing the work; is MDOT saving money?	Schedule realism and cost containment.	*
What three areas do you feel should be outsourced?	Paving and guide rail improvements.	Those areas which we don't have expertise in; where labor agreements make use comparison; make versus buy process.	Construction inspection, some design, and building maintenance.	Where we have needs beyond our current ability to do in-house; major construction projects; and areas where we have cost savings with a comparable quality product with corresponding flexibility with in-house work.	Road building and reconstruction; maintenance (portions, not all); and construction of MDOT buildings.	Engineering only.	*