NCHRP
SYNTHESIS 315

NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM

Compensation for Contractors' Home Office Overhead

A Synthesis of Highway Practice

TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

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SUBJECT AREAS

Planning and Administration, Materials and Construction, and Transportation Law

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NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM

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FOREWORD

By Staff
Transportation
Research Board

Highway administrators, engineers, and researchers often face problems for which information already exists, either in documented form or as undocumented experience and practice. This information may be fragmented, scattered, and unevaluated. As a consequence, full knowledge of what has been learned about a problem may not be brought to bear on its solution. Costly research findings may go unused, valuable experience may be overlooked, and due consideration may not be given to recommended practices for solving or alleviating the problem.

There is information on nearly every subject of concern to highway administrators and engineers. Much of it derives from research or from the work of practitioners faced with problems in their day-to-day work. To provide a systematic means for assembling and evaluating such useful information and to make it available to the entire highway community, the American Association of State Highway and Transportation Officials—through the mechanism of the National Cooperative Highway Research Program—authorized the Transportation Research Board to undertake a continuing study. This study, NCHRP Project 20-5, "Synthesis of Information Related to Highway Problems," searches out and synthesizes useful knowledge from all available sources and prepares concise, documented reports on specific topics. Reports from this endeavor constitute an NCHRP report series, *Synthesis of Highway Practice*.

The synthesis series reports on current knowledge and practice, in a compact format, without the detailed directions usually found in handbooks or design manuals. Each report in the series provides a compendium of the best knowledge available on those measures found to be the most successful in resolving specific problems.

PREFACE

This report of the Transportation Research Board will be of interest to state departments of transportation (DOTs) and private contractors faced with the issue of compensation for unabsorbed home office overhead because of contract delays. The report examines the issue from the perspectives of state DOTs and contractors. The focus is on the approaches used by state DOTs to compensate contractors for unabsorbed home office overhead for contract delays and contractor's perceptions of these approaches. In addition, the issues of how the federal government and the private sector address home office overhead and what case law and regulations can be involved are discussed.

The primary source of information for this report was a survey distributed to each state DOT and a similar survey sent to selected contractors. Responses were received from 26 state DOTs and 9 contractors. Several agencies provided copies of standard specifications dealing with unabsorbed home office overhead, related legal findings, and other supporting information. Likewise, several contractors supplied information on their approaches to dealing with the public sector. Additional information came from a literature search and the experience of the author.

A panel of experts in the subject area guided the work of organizing and evaluating the collected data and reviewed the final synthesis report. A consultant was engaged to collect and synthesize the information and to write this report. Both the consultant and the members of the oversight panel are acknowledged on the title page. This synthesis is an immediately useful document that records the practices that were acceptable within the limitations of the knowledge available at the time of its preparation. As progress in research and practice continues, new knowledge will be added to that now at hand.

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COMPENSATION FOR CONTRACTORS' HOME OFFICE OVERHEAD

SUMMARY

Compensation sought by the contractor for unabsorbed home office overhead can be one of the more contentious issues faced on transportation infrastructure projects. To understand the dynamics of the controversy, it is important to view the issue from each party's perspective. For the public owner, including state departments of transportation (DOTs), claims represent both budget problems and manpower issues. This is because these owners must devote an increasing amount of limited human and financial resources to projects that are considered finished, or in managing the claim process for ongoing projects.

Likewise, delay (caused by the owner) and unabsorbed home office overhead are also significant issues for contractors. For most public projects, contractors need to win a price competition and then make a profit. Whereas owners view a unit bid price for a yard of excavated material as a fixed cost, a contractor views that same unit price as a combination of expenditures that are likely to change over the life of the project.

The owner views the contractor as having agreed to construct a project for a set of unit prices or a lump sum, and may see the contractor's home office overhead as a constant expense unaffected by the timing of the actual construction. The contractor, however, sees the delayed construction as a genuine change in the basis of its bid price. The result of these diverging views is the potential for disagreement based on the owner's reaction to a contractor's request for reimbursement for an added cost that the owner does not believe was incurred and the contractor's belief that such costs are real and not otherwise reimbursed.

The primary source of data for this report is a survey that was mailed to the state transportation agencies of the 50 states, Puerto Rico, and the District of Columbia. A similar survey was mailed to the senior executives of 21 contractors that perform a substantial amount of their work for state transportation agencies. The list of contractors to whom surveys were sent was provided by the American Road & Transportation Builders Association, from the membership of its Contract Administration Committee.

A total of 26 state transportation agencies and 9 contractors responded to the survey. Many of the agencies provided copies of their standard specifications dealing with the treatment of unabsorbed home office overhead, related legal findings, and other supporting information. Likewise, the contractors provided information on some of their approaches to dealing with public-sector owners. The surveys were given to contractors with the stipulation that the results would be summarized and the contractors would be identified by number only.

Twenty-one surveys were mailed and nine responses received from contractors. Question 25, which asked about the average annual revenue from DOT work, resulted in eight responses,

distributed as follows: less than $5 million, 0 contractors; $5–$20 million, 3 contractors; and greater than $20 million, 5 contractors.

Where appropriate, in addition to information derived from the surveys and a literature search, the authors relied on their own personal experience and knowledge of the topic. Evaluation of the information collated suggested that state approaches to the proposed home office overhead costs could be grouped into three general models: Avoidance, Compliance, and Proactive. The Avoidance Model describes the states reporting that they have never paid for a contractor's unabsorbed home office overhead, the Compliance Model describes the states that generally follow whatever procedure or standards have been established either by boards or by courts in that state, and the Proactive Model describes the states that have taken the approach of defining how this issue will be treated in their standard specifications in an attempt to avoid court or board actions. Among the state respondents, the largest group uses the Compliance Model (13), with the Proactive Model next (8), and the Avoidance Model used the least (5). As Ohio implements its 2002 specifications, it will move from the Compliance Model approach to that of the Proactive Model, as well as introduce a new variation on the approach to treating home office overhead. This action is consistent with the other states in the Proactive Model group, because the approach to addressing home office overhead due to project delays directly through the standard specifications is relatively new compared with that of the other two approaches. The term *standard specifications* refers to the standard book of requirements used by state DOTs to administer their construction projects. These standard specifications usually contain the provisions that govern or address questions related to payment for delay.

On the basis of the survey responses received, the primary direction of change for state transportation agencies is toward the Proactive Model—that is, dealing with the issue of home office overhead directly and in advance of construction. However, the states using the Proactive Model do not treat home office overhead in the same way. Although many of the approaches are similar, others are quite different based on decisions in state courts, actions by state boards, or specific implementing procedures.

The majority of contractors that responded would like to see a preestablished approach that recognizes the issue of home office overhead and deals with it directly. The Proactive Model appears to most closely approach the objectives of both parties, at least in terms of personnel resources and expense in dealing with the issue. This is not to say that contractors like all aspects of each Proactive approach, only that the majority of the respondents prefer this process to either the Avoidance or Compliance Models.

CHAPTER ONE

INTRODUCTION

BACKGROUND

One of the more controversial issues affecting the development of transportation infrastructure projects is that of delay claims. Within the issue of delay claims, one of the most difficult elements to resolve is that of compensation sought by the contractor for unabsorbed home office overhead.

To understand the reasons why this particular issue is so divisive, it is important to view the issue from the perspective of both the owners and the contractors. For the public owner, whether a state department of transportation (DOT) or highway department, a regional or municipal government, or a special purpose authority, claims represent capital and operational budget problems as well as manpower concerns. With increasing demands for transportation infrastructure—either improvement of existing facilities or development of new facilities—many owners are faced with increased capital budgets and static or decreasing operational budgets and staffing. In this environment, claims for delay that include reimbursement for home office overhead typically require that owners

- Continually adjust capital budgets to compensate for claim settlements or board or court awards,
- Adjust staffing and resource allocation to recognize the increasing amount of time project and management staff need to devote to dealing with claims, and
- Deal with financial issues that are ill defined and heavily influenced by accounting principles and legal precedent rather than the technical aspects of projects that the owner's personnel may be better equipped to address.

The result is that owners must devote an increasing amount of limited human and financial resources to projects that are considered to be finished or in managing the claim aspects of ongoing projects.

Likewise, from the contractor's perspective, delay (owner-caused) and unabsorbed home office overhead can significantly affect the financial health and viability of its enterprise. With traditionally designed, bid, and constructed projects, contractors need to first win a price competition and then make a profit. Whereas owners view a unit bid price for a yard of excavated material as a fixed cost that extends for the life of the project, a contractor views that same unit price as a combination of labor, equipment, and material expenditures on both project and corporate personnel and facilities, all of which are likely to change over the life of the project.

In short, the owner's perspective tends to be that a contractor has agreed to construct a project for a set of unit prices, or even a lump sum, no matter when that construction occurs. On the other hand, the contractor sees delayed construction as a genuine change in the basis of its bid price and its ability to make a profit on the project. Indeed, the owner may see the contractor's home office overhead as a constant expense unaffected by when the construction actually takes place. The contractor's view, however, is that the demands on its home office staff change when a project is delayed (e.g., the increased attention required of senior management on "troubled" projects). In addition, the contractor is usually not able to vary these home office expenditures to any significant degree, particularly when the delay period is uncertain. The result is that revenues from the project do not cover these expenses. In other words, these expenses are not absorbed by the contractor's revenue from the project in question.

Although some owners attempt to avoid the issue by using sovereign immunity or a no-damage-for-delay clause, as a practical matter, most owners recognize that contractors are generally entitled to additional compensation when a delay is caused by the owner. The concern becomes how much compensation is due the contractor and how that amount should be calculated. Given that "overhead" is a term that has different meanings, depending on both the financial structure of the contractor's organization as well as the accounting standards employed, unabsorbed home office overhead becomes an issue that has great potential for conflict. Although certainly not always the situation, such conflict could become more extreme in cases where unabsorbed home office overhead is the only vehicle that, from the contractor's perspective, is available to recover other costs it considers legitimate and that are not allowed because of other contract provisions.

The foregoing discussion synthesizes the statements made by many state DOT and contractor personnel over many years. These differing perceptions of the issue make rational analysis of each situation more difficult and time consuming.

For the purposes of this synthesis, the following definitions will be used for terms that are commonly experienced in addressing delay claims.

TABLE 1
SUMMARY OF GENERAL AND ADMINISTRATIVE (G&A) COSTS FOR THREE OHIO CONTRACTORS

Description of Contractor	Approximate Annual Revenue	G&A Rate (%)
Large general contractor	$90 million	6.2
Small general contractor	$7 million	12.3
Electrical subcontractor	$3 million	20.8

Home office—A contractor's principal (or legal) office, where executive and administrative actions are undertaken for the enterprise as a whole. For the purposes of this synthesis, home office refers to the executive and administrative functions exercised for the entire enterprise. In other words, home office overhead is distinguished here from field office or job site overhead. Field office overhead consists of the costs expended to manage and administer a specific project (e.g., the cost of providing a job site office). In contrast, home office overhead costs are those incurred in support of all of a contractor's projects (e.g., the cost of leasing the home office itself). The key to understanding home office overhead costs is to recognize that it is not a cost attributable to a specific job. This definition of a home office cost could be complicated by considering regional offices, subsidiaries, sister companies, and other profit centers or lines of business conducted under a single corporate umbrella. These complications, although genuine, are chiefly accounting issues only peripherally related to the central focus of this study and will not be discussed further.

Home office overhead—Home office overhead normally consists of the fixed costs of operating a home office. Examples of such costs include but are not limited to the following:

- Rent,
- Utilities,
- Furnishings,
- Office equipment,
- Executive staff,
- Support and clerical staff not assigned to the field,
- Estimators and schedulers not assigned to field staff,
- Mortgage costs,
- Real estate taxes,
- Automobile maintenance and travel costs for home office personnel,
- Non-project-related bond or insurance expenses,
- Depreciation of equipment and other assets,
- Advertising,
- Marketing,
- Office supplies (paper, staples, etc.),
- Interest,
- Legal services,
- Accounting and data processing, and
- Professional fees/registrations.

Because home office overhead costs are defined as costs incurred to support all of the contractor's projects, the direct costs of labor, material, and equipment incurred to complete a particular project are not home office overhead costs. For example, the cost to provide a job site trailer is not a home office cost, because it is incurred specifically to support construction on a particular job site.

Note that depending on the auditing or accounting standard employed by the owner, such as Federal Acquisition Regulation (FAR) cost principles, some of these costs may not be considered for reimbursement and can be recovered only through the profit markup. For example, marketing costs and other types of costs may not be allowable for calculation of overhead under the FAR cost principles. These expenses are still a cost of doing business and need to be covered by revenue. Because they are not allowable as overhead, they must be covered by revenue that is considered profit by the auditor.

Home office overhead is often expressed as a percentage of other costs, and therefore is sometimes defined as a contractor's general and administrative (G&A) expense. Variations in accounting practices, size, type of work, and other factors make the identification of an average G&A rate problematic. Table 1 presents statistics compiled by the Ohio DOT in reporting the G&A rates of three contractors.

The survey of contractors (nine responding) in support of this study asked respondents to report their home office overhead rates. Only one respondent did so, revealing the difficulty in obtaining such information.

Unabsorbed home office overhead—The terms extended and unabsorbed home office overhead are often used interchangeably by courts and boards of contract appeals; however, the terms are not synonymous. Some authors differentiate the two terms by stating that unabsorbed home office overhead is associated with the manufacturing industry, whereas extended home office overhead is associated with the construction industry (*1*). Others distinguish between unabsorbed and extended overhead based on whether a project was formally suspended or only partially or informally suspended (*2*). In practice, most courts and boards seem to either ignore or overlook any distinction between the terms. For the purposes of this report,

"unabsorbed home office overhead" describes the situation wherein the owner's delay prevents a contractor from using resources dedicated to the delayed project on a new project, or new work on the delayed project, to generate revenue to cover the expenses associated with home office overhead. The specific tests for whether unabsorbed home office overhead has or has not been considered recoverable are discussed later in the report. However, this definition describes the issue in terms of the generation of revenue to cover expenses, to reduce the issue to its most basic component. Because it is the recovery of this type of overhead cost that is the focus of this study, the term "extended home office overhead" will not be used.

Sovereign immunity—Sovereign immunity is a right that all states possess as a result of the common law heritage of the legal system in the United States. In essence, all states were born with complete immunity from lawsuits. Over the years, many states have relinquished this shield under specific circumstances or for specific items as defined by the individual state legislatures. Although it is not used as widely today, for those states that have completely preserved sovereign immunity with respect to construction contract claims, the ability to avoid suit is absolute. In other words, contractors may not sue states with sovereign immunity to recover added costs, including unabsorbed home office overhead costs, which the state does not agree to pay.

REPORT FOCUS AND OBJECTIVES

The focus of this report will be on the approaches used by state DOTs to compensate contractors for unabsorbed home office overhead for contract delays, as reported in the responses to the survey questionnaire that was distributed to every state, as well as on contractors' perceptions of these approaches. The advantages and disadvantages of each approach will be discussed against both the owner's and contractor's perspectives as described in the preceding section. For example, will owners perceive that a particular approach will either keep them from expending resources defending themselves from claims or provide them with the ability to better manage their capital budgets? Likewise, is it probable that contractors will perceive a particular approach to fairly compensate them for delay that results from the actions of the owner? In short, does a particular approach satisfy the objectives of both owners and contractors, of one or the other, or of neither?

In support of this focus, the report references applicable case law as well as applicable appeals board and administrative decisions. It will also reference approaches that other sectors of the construction industry have used to address this issue.

REPORT ORGANIZATION

Within separate chapters, this synthesis report presents the various aspects of the issue of home office overhead as it relates to delay claims.

Chapter two provides a clear framework for the discussion of the components of the unabsorbed home office overhead issue. This chapter includes a discussion of the components of the issue of unabsorbed home office overhead. It includes a discussion of the basis of the cost from both the contractor's and accountant's perspective. It also provides a discussion of when such costs are incurred. Finally, the chapter addresses the expenses typically associated with home office overhead, with special emphasis on those expenses that are often not allowed under rules of public-sector audits.

Using chapter two as a foundation, the third chapter examines the components of unabsorbed home office overhead using relevant legal and administrative board decisions as a framework. This chapter concentrates on the methods prescribed on court and board actions when the contract is silent on a method of resolution. Chapter three also provides a discussion of the various methods traditionally used by courts and boards to establish costs associated with home office overhead, as well as some methods that have not received widespread acceptance.

Chapter four addresses the techniques currently employed by state DOTs to guide the reimbursement of unabsorbed home office overhead, including formulas, percentages, specification provisions, dispute resolution procedures, and the use of audits. For example, Colorado, Georgia, Florida, and, beginning in 2002, Ohio all have approaches to dealing with this issue that are contained in their standard specifications, which are described and compared. Each approach provided in response to the survey is reviewed according to its advantages and disadvantages, its ease of use in the field, and its applicability in different legal environments.

Chapter five shifts the focus from how state DOTs address home office overhead to a summary of how this issue is addressed by the federal government and the private sector. The advantages and disadvantages associated with each approach are identified, as well as the applicability of each approach to state DOTs.

Chapter six presents a summary of findings on the state of the practice. This chapter also identifies areas where additional research may be helpful to sharpen or improve these techniques in the future.

The five appendixes contain survey questionnaire forms and tabulations of the survey data. The survey questions had several purposes; some were designed specifically to

obtain information concerning topics of interest to the study, such as those related to the methodologies used to calculate unabsorbed home office overhead, whereas others related to specific areas where information was desired. For example, there was interest in knowing the extent to which states used sovereign immunity as a legal defense. The responses to these types of questions are the foundation for the information presented in the text of this report.

Other questions were posed to help in the understanding of the respondents and the depth of their experience. For example, several questions sought information on the definition, frequency, and handling of contract claims. By understanding a respondent's experience with claims, a better appreciation of the significance of their responses to the other questions could be obtained. Much of this background information may be interesting in its own right, but because it does not specifically relate to the principal focus of this report—the recovery of unabsorbed home office overhead—this information is not discussed. Rather, the responses to these questions are tabulated in the appendices.

CHAPTER TWO

THE BASIS FOR HOME OFFICE OVERHEAD

This chapter investigates the components of home office overhead from the perspectives of both the accountant and the contractor. Also, the chapter identifies the circumstances under which such costs are incurred due to a delay caused by the owner.

ACCOUNTANT'S PERSPECTIVE

As a matter of operating, businesses incur costs every day. These costs are recovered through the revenue generated by the business. Most large businesses use some form of cost center accounting to separate the costs associated with the home office—that is, the office that does *not* generate revenue directly—from those offices or units that generate not only costs but revenues as well. The cost of supporting the home office is typically recovered through a charge levied on the other business units, or profit centers, that generate revenue.

In the case of construction contractors, it is typical for the contractor to have a home office that is not associated with any particular construction site, as well as a number of project or field offices that are associated with the contractor's individual projects. The home office houses the executive, technical, support, and clerical staff who are not assigned to individual projects and who provide services in support of all of the contractor's projects. A list of these expenses can be found in chapter one.

The size and organization of the contractor will dictate which of the elements listed apply and to what extent; however, regardless of the contractor's overall size, costs will typically be incurred in virtually all of these categories and perhaps some others.

The following is a list of examples of costs that are not typically considered to be home office overhead costs:

- Direct labor, material, and subcontractor costs incurred to perform work on a particular project;
- Equipment rental costs incurred to provide equipment for a particular project;
- Cost to provide a project manager or superintendent for a particular project;
- Cost to provide on-site clerical, estimating, or engineering support; and
- Cost to survey for a particular project.

To the accountant the home office overhead is simply the sum of all of the costs that are associated with the people and facilities that support all of the projects. In terms of the company's annual statement, these are simply part of the costs that are added up and balanced against the company's revenues. The accountant's interest is limited to whether the home office overhead costs will be recovered by allocating them to individual projects based on the level of direct labor expended, on the total revenue from the project, or some other method. The important distinction between the accountant and the contractor is that the accountant is concerned only that the costs are properly reflected in terms of the accounting or auditing standards. The contractor, on the other hand, must be concerned with how these costs affect the financial viability of its organization.

CONTRACTOR'S PERSPECTIVE

The contractor's perspective is somewhat similar to that of the accountant, with two major exceptions. First, the contractor needs to be concerned with how to price jobs to be able to recover all expenses, including those expenses associated with the operation of the home office. Second, the contractor must be aware of the rules under which each project must be completed. Not only may the contract provisions vary widely among projects with different owners, but also the ability to recover costs may be limited based on the rules associated with particular projects. For example, if a project is subject to FAR for accounting purposes, some costs such as entertainment expenses and bad debts may not be considered as part of overhead. To the accountant, this situation simply relates to how the costs are treated in the ledger. To the contractor, this means that these costs, as well as all unallowable costs, must be covered by the profit on the project, thereby reducing the profit potential on the project.

The profit potential of individual projects is driven by many factors, including the contract terms and the level of competition. In an ideal world, contractors would and could make a decision about whether to compete for individual projects based on a full knowledge of what all of their costs would be throughout the life of the project, and then price the project accordingly. In the real world, however, many of the costs that have to be incurred to complete a project, both direct project costs as well as home office overhead costs, are not precisely known. More

importantly, the contractor does not have complete control over these costs, and it has limited ability to control and mitigate them. In states where sovereign immunity has been retained or no-damage-for-delay clauses have been upheld by the courts, contractors recognize that they need to increase the contingencies in their bids for potential owner-caused delays. As the uncertainty of the contractor's potential costs increase, the greater the contingency portion of the markup must be for a contractor's executive office to fulfill its fiduciary responsibility to its owners.

As the use of alternative methods of contracting has increased, contractors have also had to deal with adapting to different levels of investment in the marketing and bidding aspects of their operation in addition to increasing risk. For example, design–build contracting approaches require a significantly different level of investment on the part of the contractor to prepare a bid, often involving significant design effort and requiring examination of activities that may or may not be provided by the owner, such as right-of-way acquisition. These changes in contracting approach are important to this study in that there is pressure on contractors to increase their home office professional staff, particularly in terms of individuals who are necessary to pursue such nontraditional contracting approaches. As these fixed costs increase, the issue of being able to recover unabsorbed home office overhead becomes even more important from the contractor's perspective. These changes also tend to alter the entire overhead structure of larger contractors such that they begin to resemble design firms, with many of the same kinds of overhead expenses in marketing and some professional specialties that previously had not existed at a contractor's home office. This situation also makes it more difficult to alter the overhead levels on a short-term basis or for periods that are uncertain, for such employees may be more difficult to find and retain.

COSTS INCURRED DURING A DELAY

When a project is delayed, regardless of the cause, the basis under which the contractor made the pricing decisions for that project is changed. When the cause of the delay is the contractor, the delay is presumably made for the contractor's benefit, or at least it is the result of the contractor's decisions. When the cause for the delay is the owner, the resulting changes to the contractor's costs are unlikely to be consistent with the pricing decisions made by the contractor at bid. Although the costs associated directly with the project that result from a delay are relatively easy to compute and relate to the delay, the same is not true for home office overhead.

In the United States, cost center accounting models tend to allocate the costs associated with home office overhead to individual projects on the basis of direct labor costs or total project revenues and billings. If a project is suspended, that is, delayed by the owner's stoppage of all or the critical part of the work, what is the result? During the period of the suspension, there would be a significant decrease in the direct labor costs associated with the project and perhaps a decrease in some material acquisition costs, whereas some fixed costs such as on-site facilities would continue unabated. Likewise, revenues would decrease or stop entirely during this period, meaning that the project would pay for a much smaller share of the total home office overhead costs than considered by the contractor when the project was priced. Until the contractor is able to obtain additional work to replace the suspended work, the cost of the contractor's home office overhead would have to be borne by the revenue from the contractor's other projects, paid for from the contractor's reserves, or paid for by borrowing from the contractor's line of credit. This real time snapshot of revenues and expenses leads to the concept of unabsorbed home office overhead. Simply stated, it means that the expected revenues to pay costs in real time are not available from a particular project, and there is no new revenue to act as an offset.

In the event that the contractor can reassign its field personnel to a replacement project, the cost incurred is limited to the fixed costs for job site facilities and equipment that cannot be relocated, as well as expenses involved in moving personnel and equipment to other sites. Assuming that the contractor distributes its home office overhead costs by the amount of direct labor expended, there is almost no difference in the revenue generated and the home office overhead absorbed by the replacement project. To avoid confusion, it is important to note that courts have generally held that this replacement work must be new work rather than other ongoing projects. Although the delay could place additional demands on the home office in dealing with the logistics, perhaps incurring some unexpected overtime personnel expenses, in the large picture, the revenue stream to absorb the costs is maintained. Generally, it is practical to reassign personnel and equipment only when the length of the delay is known and the replacement project is ongoing or at least ready to begin. The reason for this is that if a contractor must bid on a project, negotiate a contract, and then mobilize to provide replacement work, the revenue stream suffers a major interruption and a significant portion of home office overhead remains unabsorbed.

When the period of delay is uncertain and the contractor must, in effect, stand by, then the contractor experiences an interruption in its revenue stream. The portion of the home office overhead costs that the project revenue would have covered are now unabsorbed. An additional issue is whether it is practical for the contractor to modify those home office costs during the delay period. To some degree, the ability of a contractor to modify its home office overhead costs depends on the size and structure of the contrac-

tor. For the most part, however, the fixed costs, such as rent or real estate taxes on office facilities, cannot be changed, and it may well be impractical as well as imprudent to lay off support personnel for an undefined period of time.

The situation as described is essentially the basis for a claim for unabsorbed home office overhead costs during a delay that is caused by the owner. The key element being that the revenue stream that is expected to cover home office expenses in a normal business plan is interrupted and cannot be replaced in real time. Contractor activity to deal with this situation may result in increased home office expenditures in the face of the reduced revenue stream and, from a business perspective, it results in a real cost to the contractor.

CHAPTER THREE

RECOVERY OF UNABSORBED HOME OFFICE OVERHEAD

THE EICHLEAY SAGA

The fundamental laws of damages can be stated quite succinctly and be readily understood. Courts have long recognized that damages need not be calculated with absolute certainty to be recoverable. Courts have also long held that damage calculations that are based upon speculation may not be recovered, even if some damage was almost certain. The ground between certainty and speculation, however, provides a fertile playing field for courts and boards to make decisions that will continue to affect the fate of owners and contractors alike.

The event that spawned current terminology was a decision by the Armed Services Board of Contract Appeals in 1960 involving construction of a Nike missile site. The contractor was the Eichleay [Í klā] Corporation, and the formula used to calculate the unabsorbed home office overhead awarded by the board has become known as the Eichleay Formula, even though the formula had been used in earlier cases by the U.S. Court of Claims (*3*). Essentially, the formula states that overhead associated with support of an individual project is proportional to the ratio of the billings on that project compared with the total billings of the company while the project was active. The daily rate of overhead due to the contract is the total allocable overhead divided by the total number of days in the contract. The overhead attributable to delay becomes simply the product of the daily overhead rate and the number of days of delay.

Although the use of the Eichleay Formula to recover home office overhead is well established in claims involving the federal government, refinements governing its application seem to accompany each new case. State agencies, on the other hand, not only have far less case law upon which to rely for guidance, but that case law is also far less settled. One state's courts (New York) have simply rejected the use of the Eichleay Formula; others have shied away from outright acceptance or rejection and said that they will consider its applicability only on a case-by-case basis. Still others have accepted the formula, but they have adopted a variety of distinctions and prerequisites to its application.

Among the distinctions articulated by courts that adopt the Eichleay Formula are variations that require the analysis of (1) unabsorbed overhead versus extended overhead and (2) delays caused by additional work versus delays caused by suspensions. Among the prerequisites that have been articulated by courts adopting the Eichleay Formula are (1) an owner-imposed suspension of critical work, (2) an owner requirement that the contractor stand-by during the associated delay, and (3) proof that while standing-by the contractor was unable to take on additional work. Note also that to be entitled to recover any costs for a delay, including unabsorbed home office overhead, the contractor must establish that the delay was "compensable." Usually, this means that the contractor must show that the delay was the owner's fault or responsibility, was not the contractor's fault or responsibility, and reasonably could not have been anticipated by the contractor.

Eichleay Formula

$$\frac{\text{Contract Billing}}{\text{Total Billing for Contract Period}} \times \text{Total Overhead for Contract Period} = \text{Overhead Allocable to Contract}$$

then

$$\frac{\text{Allocable Overhead}}{\text{Days of Performance}} = \text{Daily Contract Overhead}$$

then

$$\text{Daily Contract Overhead} \times \text{Number of Days of Delay} = \text{Amount Claimed}$$

(Each of the terms used in this formula and the other formulas included in this study has a specific, detailed definition. The formulas should not be used without developing a complete understanding of these terms.)

Rejection of the Eichleay Formula can be based on a variety of legal theories, including the following:

- Sovereign immunity that is intact except to the precise extent that a state has specifically waived it;
- Statutory preclusion, either express or implied;
- Enforcement of no-damage-for-delay clauses or other clauses that specifically forbid payment of unabsorbed home office overhead; or
- Rejection of the Eichleay Formula by the judicial body having jurisdiction over the case.

based on either the bid documents or an audit of the contractor's records. An audit would reveal, or perhaps allow the calculation of, the historical percentage markup for home office overhead applied to each project. The percentage markup is multiplied by the original contract amount and then divided by the original number of days in the contract. Alternatively, the daily overhead amount could be included in the bid documents as an integral element of the contractor's bid, thereby substituting the bid amount for the result of the first formula in the following calculation. This method is applied as follows:

Canadian Method

$$\frac{\text{Percentage Markup} \times \text{Original Contract Sum}}{\text{Original Number of Days in Contract}} = \text{Daily Overhead Rate}$$

then

Daily Overhead Rate × Days of Compensable Delay = Compensation for Home Office Overhead

where

Percentage Overhead Markup = The percentage markup used by the contractor in its bid to cover home office overhead costs, usually identified as G&A;

Original Number of Days in Contract = The original contract duration, in calendar days;

Days of Compensable Delay = The number of calendar days of delay to the project for which added compensation is due; and

Overhead During Delay = The overhead cost experienced during the delay period.

ALTERNATIVE FORMULAS

Over the years, a number of alternative methods for calculating unabsorbed home office overhead have been used, either by contractors attempting to quantify damages or by courts or boards in establishing damage levels. Two of the more well-known alternatives are the Allegheny Method and the Carteret Method. Both methods are absorption rate formulas that preceded the Eichleay Formula and were generally used for manufacturing. Absorption rate formulas calculate underabsorption by comparing a potential or reasonable overhead absorption rate against the actual absorption rate for the purpose of evaluating the effect of the delay on the contractor's overhead absorption. Neither the Allegheny nor the Carteret Methods has found much use in state actions or in the approaches that are being taken by various state agencies.

Another method that may have more application here is the Canadian Method. The Canadian Method uses the contractor's actual markup for overhead in its calculation,

None of the state DOTs responding to the survey indicated that they had used the Canadian Method. The significance of this is derived not from frequency of use, but from its resemblance to the formulas adopted by the Florida and Ohio DOTs to calculate home office overhead costs. These formulas are discussed in more detail in the next chapter.

In the myriad of legal actions that have occurred in all venues regarding this issue, many claims have been made and approaches proposed. Contract provisions that identify home office overhead costs and include such costs in markups that are applied to changed work have been cited as creating either a limitation on the amount that may be recovered or as establishing a mutually acceptable level of markup, if change orders using those markups have been executed and contain no specific reservations to the contrary.

Broad exculpatory language that purports to bar the recovery of such overhead cost altogether, for example, clauses that prohibit recovery of unabsorbed home office

overhead or simply recovery of home office overhead, is also sometimes enforced. However, in states where precedent for enforcing this type of clause does not exist, such language can entail risks because, generally, exculpatory language is closely reviewed and narrowly construed by courts. Proof of breach of contract can also limit the availability of such contractual limitations of liability.

Some state agencies have begun to experiment with the inclusion of creative contract provisions, some of which have been employed in the private sector for some time. Examples of such creative approaches are

- Agreement on a "grace period" beyond the original contract completion date, during which period no additional home office claim will be made;
- Use of a bid item to arrive at a stipulated daily or other periodic amount to cover home office overhead; and
- Agreement upon a formula for arriving at a home office overhead amount.

CHAPTER FOUR

MODELS OF STATE DOT APPROACHES

This chapter identifies and classifies the approaches to the issue of unabsorbed home office overhead, as described in the responses to the survey that was distributed to the transportation agencies of all 50 states, Puerto Rico, and the District of Columbia (see Appendix A). Twenty-six responses were received and are listed in Appendix B. The results were tabulated and can be found in Appendix C. Also, a similar survey was provided to a number of contractors that regularly construct transportation infrastructure projects for state DOTs (see Appendix D) with the results from the nine respondents tabulated in Appendix E. The contractor survey was conducted on the basis that the contractors would not be identified.

To attempt to describe the approaches taken by various states, the first step was to classify the approaches by broad categories. Given the range of approaches that individual states employ, this first step proved to be challenging. As a result, the categories selected are broad and include a number of variations.

- Never paid for home office overhead (Avoidance Model),
- Paid for home office overhead based primarily on court and board precedent (Compliance Model), and
- Address payment of home office overhead in the standard specifications (Proactive Model).

The names selected for the models are intended to be descriptive and not judgmental. Avoidance is short for "never have paid any money for it," and proactive substitutes for "a process that is established ahead of time."

Each of the models is discussed here. These sections also describe the strengths and weaknesses of each model and identify the perspective from which the model is a strength or weakness. These perspectives are based on the objectives of owners and contractors as identified earlier.

AVOIDANCE MODEL

Of the 26 states that responded, 5 (Arkansas, Minnesota, Nebraska, North Dakota, and Wisconsin) indicated that they had never paid for unabsorbed home office overhead as a part of a claim for delay. In all five cases, the survey response indicates that contractors have included unabsorbed home office overhead in their claims; however, these states have never reimbursed contractors for these costs. Interestingly, among these five states, only Arkansas and Wisconsin indicate that they have maintained sovereign immunity. It further appears that in Wisconsin contractors can have sovereign immunity waived by the legislature on a case-by-case basis.

With the exception of Arkansas, the survey responses do not indicate the reason that the states have never paid for unabsorbed home office overhead. For example, it was not clear from the responses whether the recovery of unabsorbed home office overhead was precluded by specification. In Arkansas, the state has maintained its sovereign immunity and, as a matter of policy, does not consider home office overhead, only field overhead.

Likewise, these states treat the issue of certification of claims differently. Arkansas, Minnesota, and North Dakota all require that claims be certified. Nebraska's specifications define the point at which a proposal becomes a claim but does not require that the contractor certify the claim. Wisconsin treats all requests for additional compensation as claims.

All five states indicated that courts, boards, or other administrative tribunals had never awarded unabsorbed home office overhead. Arkansas noted that courts, boards, or administrative tribunals had specifically denied claims for unabsorbed home office overhead. Wisconsin indicated that courts had made lump sum awards but had not specified what was, or was not, included. The other three states indicated that courts, boards, or administrative tribunals had never specifically denied awards for unabsorbed home office overhead.

In summary, it appears that Arkansas and Wisconsin have used their sovereign immunity as an effective defense to claims for unabsorbed home office overhead. In the cases of Minnesota, Nebraska, and North Dakota the reasons are less clear. However, both Nebraska and North Dakota indicated in their responses that they have a proactive attitude in terms of dealing with claims early, which could mitigate legal or administrative challenges.

Strengths of the Avoidance Model

From the owner's perspective, avoidance means that fewer personnel are required to process and negotiate claims. Likewise, budgets would tend to be stable and not need to

be readjusted to account for awards. It is doubtful that contractors would see any strengths to this approach.

Weaknesses of the Avoidance Model

From the owner's perspective, the only weakness may be that the inability to recover costs may lead to higher bid prices as contractors protect themselves against potential loss.

From the contractor's perspective, the approach in this model is completely at odds with the contractor's interests. Costs associated with unabsorbed home office overhead must be recovered through some other means and must be included in the original bid as well as in change orders and supplemental agreements.

COMPLIANCE MODEL

Thirteen of the respondent states were grouped within the Compliance Model; so named because it appears that these states must respond to a contractor's claim, without the limitations imposed in the Proactive Model, but in accordance with the precedents set by state courts or boards. This group ranges from states that have very little to say about claims in their specifications to Texas, which has a rather robust claims procedure, as described in the Texas Administrative Code (available on the Internet). Note that Texas has retained its sovereign immunity. However, unlike Arkansas, which uses its sovereign immunity to avoid claims, Texas uses its immunity to direct and keep claims within its established process. Note also that a state may fall within the Compliance Model category even when its contract specifically precludes the payment of home office overhead, if the survey data indicated that, nonetheless, claim settlements had been made in which this cost had been recognized. At the time of the survey, Ohio was in the process of changing its standard specifications, such that by 2002 it was scheduled to employ a process similar to that of the Proactive Model, and the state would have been classified as within that group had the specifications already been in effect. The majority of the states in this group have provisions similar to the following General Provision contained in the Indiana specifications (*4*):

> **105.16 Claims for Adjustment and Disputes.** If the Contractor deems that additional compensation will be due for work or material not clearly covered in the contract or not ordered as extra work, as described herein, notification shall be made in writing of the intention to make claim for such additional compensation before the work is begun on which the Contractor bases the claim. If such notification is not given and the Engineer is not afforded proper facilities for keeping strict account of actual cost as required, no claim shall be made for such additional compensation. Such notice, and the fact that the cost as aforesaid has been accounted for, shall not be construed as proving or substantiating the validity of the claim. If the claim, after consideration, is found to be just, it will be paid as provided herein for force account work. Nothing in this subsection shall be construed as establishing a claim contrary to the terms as set out in 104.02.

The Indiana specification provides that the claim is paid as force account, which typically includes a markup that may or may not consider unabsorbed home office overhead. At the other end of the spectrum within this group is Arizona, which has a provision very similar to that used by six of the eight states in the Proactive Model, except that instead of using a set percentage markup, the specification requires submission of the amount sought for G&A overhead. The implication is that this is not a percentage markup, but a specific dollar amount. The survey indicates that Arizona has had only two claims in the last 10 years and it appears that the amount for G&A overhead was calculated using the Eichleay Formula as adjusted for unallowable costs and the length of delay.

When a state appears to have used no specific formula, the survey responses of these states indicate that the method of resolution was primarily through negotiations. A few states indicated that the Eichleay Formula was used as a basis for negotiation, and a number of states indicated that the dispute was resolved by a third party.

The Compliance Model is the only one with an approach that potentially requires accounting or auditing support. The Avoidance Model denied the recovery of home office overhead costs entirely, precluding the need for accountants and auditors to calculate such costs. The formulas used in the Proactive Model do not require the use of accountants for calculation or the use of information obtainable only from audit.

The 26 state survey respondents indicated that auditing services were used extensively, with 17 states having written provisions in their contracts giving them the right to audit. Eighteen states have actually conducted audits of contractors' records.

Strengths of the Compliance Model

From the contractor's perspective, this approach tends to keep all options open in terms of how unabsorbed home office overhead is calculated and recognized. Owners would be expected to perceive few strengths with this model.

Weaknesses of the Compliance Model

From the owner's viewpoint, this approach essentially leaves the owner at the mercy of the courts and boards in

terms of the methodology used and the level of award. Furthermore, as more claims arise, this approach tends to demand significant levels of manpower investment; for example, additional legal staff or perhaps personnel within the "central office" dedicated to the evaluation of claims.

For contractors, although their approaches may be unrestricted, being fairly compensated by either courts or boards is not guaranteed. In addition, the preparation of claims generally requires an investment in attorneys and consultants.

Both the state DOT and contractor survey results provided suggestions that might allow states using the Compliance Model to eliminate some of the weaknesses of this approach. Some states using the Compliance Model approaches have been successful in minimizing the number of claims they handle each year. They have accomplished this by aggressively pursuing claims avoidance techniques, particularly partnering. The contractors' surveys confirmed the importance of partnering in preventing claims. Contractors that had never filed claims also had never sought reimbursement for unabsorbed home office overhead.

PROACTIVE MODEL

At the time of the survey, the states grouped within this model consisted of California, Colorado, Connecticut, Florida, Georgia, New Jersey, New York, and Virginia. Ohio indicated that with the approved changes to the 2002 edition of its standard specifications that it will join this group. Within this group there is a further subdivision; that is, Florida, and now Ohio, use a form of the Canadian Method for calculating home office overhead, and California has an assumed home and field office overhead built into its standard markups and is piloting a bid item for time-related overhead. Five states (Colorado, Connecticut, Georgia, New Jersey, and New York) apply a percentage add-on for home office overhead to some of the typical field costs that can be closely tracked and audited, and one state (Virginia) applies such a percentage through policy rather than through the contract documents. The concept that connects all of these techniques is that they have addressed the payment of home office overhead explicitly in their specifications.

Consider Florida first. The Florida specifications provide directly for the calculation of job site and indirect impacts during a delay. Section 5-12.6.2.2, "Compensation for Indirect Impacts of Delay" (*5*), provides that

> When the cumulative total number of calendar days granted for time extension due to delay of a controlling work item caused solely by the Department is, or the cumulative total number of calendar days for which entitlement to a time extension due to delay of a controlling work item caused solely by the Department is otherwise ultimately determined in favor of the Contractor to be, greater than ten calendar days the Department will compensate the Contractor for jobsite overhead and other indirect impacts of delay, such indirect impacts including but not being limited to unabsorbed and extended home office overhead, according to the formula set forth below and solely as to such number of calendar days of entitlement that are in excess of ten calendar days. No other jobsite overhead and other indirect impacts of delay shall be compensable under any circumstances whatsoever, nor shall the Contractor be entitled under any circumstances to receive compensation for jobsite overhead and other indirect impacts beyond the amount provided for herein.

The formula used by the Florida specification is as follows:

$$D = \frac{A \times C}{B}$$

where

A = original contract amount,
B = original contract time,
C = 8%, and
D = average overhead per day.

The formula is essentially the same as the Canadian Method, with the exception that in the traditional Canadian Method, C is an overhead percentage that is determined by audit or from the bid documents and applies only to home office overhead, whereas Florida's approach also covers field overhead (*6*). Florida's approach establishes the markup at a constant 8%. The amount of the claim due to job site overhead and indirect costs that is compensable to the contractor is determined by multiplying the average overhead per day, D, by the number of days of delay computed as described in the specification. The 8% markup appears to have been arrived at through negotiations between the Florida DOT and the Florida construction community.

Ohio's approach is similar in method, but it differs in the particulars from that used by Florida. Whereas Florida considers field overhead and uses a fixed rate of 8%, Ohio's approach includes only home office overhead at a fixed rate of 5.5%. The Ohio DOT, however, applies this procedure only to suspensions of work. Section 109.05 of the Ohio 2002 Construction and Materials Specification contains the new procedure (*7*). Like Florida, Ohio requires at least 10 calendar days of excusable, compensable delay before the formula is used, which is calculated as

$$HOOP = \frac{D \times (A \times C)}{B}$$

where

A = original contract amount;
B = contract duration in calendar days;
C = 5.5%;
D = excusable, compensable delay in calendar days (beyond 10 days); and
$HOOP$ = home office overhead payment.

Note also that Ohio DOT's specification contains an extensive discussion of exactly how the B and D terms are to be adjusted for winter shutdowns and how the A term is adjusted for subcontractors.

The following is a sample calculation:

A = \$10,500,000,
B = 250 calendar days,
C = 5.5%, and
D = 15 calendar days.

$$HOOP = \frac{15 \times (\$10{,}500{,}000 \times 5.5\%)}{250} = \$34{,}650$$

Still another method is California's pilot bid item for time-related overhead. In this approach, the contractor bids a daily overhead cost. Formulas like the Eichleay Formula, the traditional Canadian Method, and the computed amounts based on the flat rates contained in the Florida and new Ohio specifications are not used. As in the Florida approach, the amount (in this case the total dollars) to be applied is known from the time that the contract is issued, whereas in the Eichleay Formula and traditional Canadian Method, the percentage to be applied must wait until completion of an audit. Note that with the exception of Virginia, all of the states included in this group require that the contractor's records be available for audit.

The following paragraph is taken from a current construction contract for the Alameda Corridor in California. The project is not for the California Department of Transportation (Caltrans), but it is representative of Caltran's approach, although it includes *all* costs during the delay period, not just overhead costs. This paragraph refers to the bid daily rate for delay that is included in the contractor's bid proposal.

> Established (Dollar) Daily Rate for Delay: Unit rate per day which constitutes full and complete compensation for all delay costs compensable in accordance with GC-47, including but not limited to: all field and home office supervision, administration and overhead, all idle and extended equipment, insurance and bond costs, direct and indirect costs, impact, acceleration and all inefficiencies of any nature for prime, all subcontractors and suppliers at every tier, associated with any delay subject to a final determination, of allowability and allocability under FAR. This is not a unit price as defined in the Contract Documents.

When not using the pilot bid procedure, a feature of California's approach is its standard markups, which include an assumed 5% for home office overhead and 5.5% for job site overhead that are applied to approved changes. Although California typically uses the Eichleay Formula to calculate the total home office overhead when the criteria for application of that formula are met, a credit is taken for the standard markups paid on approved changes; that is, the 5% markup on approved changes is subtracted from the total cost calculated by the Eichleay Formula to determine the final amount for unabsorbed home office overhead due the contractor. In other words, the Caltrans methodology allows the use of the Eichleay Formula, but it credits the overhead paid on approved changes against the amount calculated using this formula.

The other five states use methods that exhibit a large number of similarities to one another for calculating the amount of home office overhead due a contractor. It is important to note that the approach used by these states is a fairly typical approach to calculating the cost of force account work. The key difference is in the recognition in the specifications (or policy) that home office overhead is a legitimate item. The following is the Colorado specification that deals with this issue (*8*):

> **109.10 Compensation for Compensable Delays.** If the Engineer determines that a delay is compensable in accordance with either subsection 105.17 or 108.06, monetary compensation will be determined in accordance with this subsection.
> (a) Only the additional costs associated with the following items will be recoverable by the Contractor:
> (1) Wages and benefits paid for non-salaried labor required as a direct or indirect result of the delay;
> (2) Costs for additional bond, insurance, and tax;
> (3) Increased costs for materials;
> (4) Equipment costs calculated in accordance with subsection 109.04 for Contractor-owned equipment and based on invoice costs for rented equipment;
> (5) Costs of extended job site overhead;
> (6) An additional 10 percent will be added to the total of items (1), (2), (3), (4), and (5) as compensation for items for which no specific allowance is provided, including profit and home office overhead.
>
> (b) In any adjustment for delay costs, the Department will have no liability for the following items of damages or expense:
> (1) Profit in excess of that provided in (a) above;
> (2) Loss of profit;
> (3) Additional cost of labor inefficiencies in excess of that provided in (a) above;
> (4) Home office overhead in excess of that provided in (a) above;
> (5) Consequential damages, including but not limited to the loss of bonding capacity, loss of bidding opportunities, and insolvency;
> (6) Indirect costs or expenses of any nature in excess of that provided in (a) above;
> (7) Attorney's fees.

TABLE 2
SUMMARY OF ALLOWED MARKUP FOR HOME OFFICE OVERHEAD

State	Allowable Markup	Covers	Applied to
Colorado	10%	Home office overhead and profit	1. Nonsalaried labor costs 2. Added bond, insurance, and tax expense 3. Increased material costs 4. Added equipment costs 5. Added job site overhead costs
Connecticut	10%	Home office and profit	1. Nonsalaried labor costs 2. Increased material costs 3. Added job site overhead costs
Georgia	15%	Home office and profit	1. Nonsalaried labor costs 2. Added insurance and tax expense 3. Increased material costs 4. Added equipment costs 5. Added job site overhead costs
New Jersey	10%	Overhead, general superintendence, and other costs attributable to delay (specifically excluding profit, as profit is not allowed on delay claims)	1. Nonsalaried labor costs 2. Bond, insurance, and tax expense 3. Added equipment costs
New York	10%	Home office overhead and profit	1. Nonsalaried labor costs 2. Added insurance and tax expense 3. Added equipment costs 4. Added job site overhead costs
Virginia	15%	Field and home office overhead	1. Costs associated with a compensable delay claim

All costs claimed must be documented and accompanied by a claim certification form obtained from the Department.

Colorado uses a 10% markup on items (a)(1) through (a)(5) to account for both profit and home office overhead. This calculation includes the actual costs of materials, equipment, bonds, insurance, taxes, and direct and hourly labor, as well as additional job site overhead. The states of Connecticut, Georgia, New Jersey, New York, and Virginia all followed approaches similar to Colorado's. Table 2 summarizes these markups.

In summary, all of the Proactive Model approaches share the attribute of being relatively simple to apply. In practice, they have the potential to save a significant amount of time for state DOT personnel who administer claims. Also, with the exception of Virginia, they stipulate up front those contractor costs that will be considered, as well as the extent to which they will be considered.

Strengths of the Proactive Model

From the owner's perspective, the approaches in this model are all relatively simple to apply and have the potential to reduce the investment in manpower needed for processing and negotiating claims. Furthermore, these approaches provide straightforward ground rules that should make budgeting for potential awards relatively simple. Also, this approach has the potential to reduce claims, because delay issues may be more easily resolved at the field level based on the specifications.

From the contractor's perspective, the approaches in this model all recognize that home office overhead is a legitimate cost of doing business, and that this investment can be affected by owner-caused delays on individual projects. Also, the contractor knows the extent to which it can be compensated for such delays and can include this information in making initial pricing decisions when bidding projects.

Weaknesses of the Proactive Model

From the owner's perspective, the Proactive Model may not result in as stable a budgetary picture as does the Avoidance Model. From the contractor's viewpoint, the individual percentages, or the items considered, may not be sufficient for the full recovery of costs. Also, the provision of a contract-based process may limit the consideration that courts may give to other approaches for calculating unabsorbed home office overhead, minimizing a contractor's opportunity to receive, from its perspective, full compensation for its costs.

A last comment concerns the transition from the Compliance or Avoidance Model to the Proactive Model. The Ohio DOT serves as a useful case study to address this issue. Ohio was faced with a state law and court decisions that required that contractors be reimbursed for unabsorbed home office overhead. Initially, this obligation was handled exclusively at the central office level as a claim. Decentralization and a genuine desire to mitigate claims necessitated that some method be developed that would allow Ohio DOT's on-site personnel to calculate home office overhead costs when appropriate. Developing a formula that could be applied simply without an audit, and without debating allowable overhead cost was the Ohio DOT's solution. This formula is now a part of the Ohio DOT's standard specifications.

CHAPTER FIVE

FEDERAL GOVERNMENT AND PRIVATE-SECTOR APPROACHES

Both the federal government and the private sector are responsible for a large volume of contracting that is subject to many of the same issues that face state DOTs. A general review of the literature was conducted to see if there are any innovative approaches that may provide some ideas for initiatives.

FEDERAL GOVERNMENT

The literature indicates that the federal government is tied to the Eichleay Formula through precedent and practice, although individual agencies appear to be attempting to find another approach. Some agencies are attempting to define overhead levels in terms of a set percentage. For example, the U.S. Department of Veterans Affairs has included a clause, entitled "Changes-Supplement," in its construction contracts. This clause limits the recovery of overhead and profit on changes to a specified percentage of direct costs and has been upheld by the Federal Circuit Court, which has had the effect of preventing the contractor from recovering unabsorbed overhead for delay in circumstances where the delay was caused by the addition of work to the contract.

For the most part, however, the federal government seems to be pushing ahead with Alternative Dispute Resolution initiatives. These appear to be efforts to employ new techniques in dealing with disputes, to reduce the manpower investment rather than specific attempts to modify contract language to avoid disputes. To the extent that such initiatives reduce the number of disputes that end up in the courts or before formal review boards, they have the potential to save both agencies and contractors time and money in dispute resolution.

PRIVATE SECTOR

As with the discussion of the federal government's approach to the recovery of unabsorbed home office overhead, the discussion of the private sector's approach to this issue is not based on extensive survey data. Instead, it is based on the literature review and personal experiences.

The chief distinguishing characteristic of the private sector compared with that of the public sector is the method of procurement. The vast majority of private-sector procurements are accomplished through negotiation with prequalified contractors. However, this does not eliminate the unabsorbed home office overhead recovery issue; certainly, contractors in the private sector have been able to recover such costs. Furthermore, private owners cannot make use of the sovereign immunity defense. What it does mean, however, is that the parties to the contract can negotiate and agree on the approach to recovery of these costs before any work is performed. It also means that the parties can prepare for the risks associated with delay and the associated costs to the particular project. There is no standard solution. It is also important to note that in these negotiations the owner can leverage its ability to offer a long-term relationship with the contractor to acquire better terms—an option unavailable to public owners. Other factors that distinguish public from private construction contracts are the widespread use of time and materials or cost-plus (often with a guaranteed maximum price) contracts in the private sector and that several state DOTs must by law reimburse a contractor for its delay costs, regardless of the wording of the contract. For these reasons, at a minimum, the experience of the private sector as it concerns the recovery of unabsorbed home office overhead is of limited usefulness to DOTs.

In terms of innovative approaches to the recovery issue, the private sector does not appear to offer techniques significantly different from those already discussed. Ownership's enhanced leverage in negotiations appears to result in widespread use of the Avoidance Model approach; many private-sector contracts simply preclude the recovery of unabsorbed home office overhead. When owners allow for the payment of these costs, it is often in the form of a "reverse liquidated damage"—a negotiated and agreed-on amount to be paid to the contractor in the event of an owner-caused delay. No example of a private owner using a predetermined formula to calculate unabsorbed home office overhead costs was evident. Although not surprising given this discussion, this point further illustrates the profound differences between public- and private-sector procurement practices and the limited guidance that the private sector can provide concerning the recovery of such costs.

CHAPTER SIX

CONCLUSIONS

This synthesis report draws information from the survey responses of 26 state DOTs and 9 contractors, as well as a review of the current literature, to develop an overview of the current state of the practice in dealing with the issue of contractor home office overhead. Certain patterns and trends emerged as the data were assimilated and the literature reviewed; however, the results are relatively general, because there is no unified approach to this issue.

Although a few of the state respondents have not addressed the issue of home office overhead recovery, the majority still react to the precedents set by boards and courts and handle claims as extra-project activities. A significant number of respondents, however, are making an effort to set ground rules and confront the issue as part of the contract documents by using the general provisions of the standard specifications. Within this group there are a relatively large number of variations on a few basic themes.

The trend toward such ground rules is important, because eight of nine contractor respondents indicated that they would prefer to see an approach that is defined in advance. Within that majority, five indicated that they favored this approach, even if the percentage markups identified did not fully compensate them for their costs in completing the project.

It appears that any of the Proactive Model approaches do more to satisfy the objectives of both owners and contractors than either the Avoidance Model or the Compliance Model. It is important to recognize, however, that the actual level of a contractor's overhead tends to be a fairly indeterminate element. Not only do the percentage markups applied by different state approaches differ significantly, of the nine contractors who responded, only two indicated that their home office costs have ever been audited, and only one shared its audited overall overhead rate.

This situation results in widely different opinions regarding what is a legitimate home office overhead rate for any particular situation. Furthermore, it makes devising a standard percentage that is fair to both owners and contractors very difficult. Although the likely recommendation would be to conduct additional research on contractor overhead rates, such research might not yield any significant benefit. The bases for reaching this conclusion include

- The wide variety of organizational and financial models used by contractors,
- The differences in many of the costs that are part of the overhead formula on a geographic basis, and
- The multiple accounting regulations that define what is an allowable overhead expense.

Instead, it would appear that in those states that adopt a Proactive Model approach, a continued dialogue between the state DOT and the contracting community may do more to achieve a mutually acceptable percentage markup than would result from continued study. Likewise, states might consider observing California's pilot program, or similar approaches such as that discussed for the Alameda Corridor, of including the daily delay cost in the bid proposal to determine if the approach might have merit in other venues. Over the next few years, it might also be worthwhile to structure a study of the Florida, Ohio, and California approaches to evaluate whether any have succeeded in achieving the objectives for owners and contractors as discussed in this synthesis. Another area of potential research might be to evaluate how contractors factor the risks associated with the recovery of home office overhead into their bids. Such an evaluation could allow state DOTs to better determine the consequences to their budgets of using the Avoidance, Compliance, or Proactive Model approaches to address the recovery of home office overhead costs.

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APPENDIX A

State Transportation Agency Questionnaire

National Cooperative Highway Research Program

Project 20-5, Synthesis Topic 32-10

Compensation for Contractors' Home Office Overhead

Questionnaire

Delays to highway construction projects are sometimes unavoidable. If the DOT is responsible for these delays, one of the consequences may be a request from the contractor for additional compensation for the costs resulting from the state's delay. Measuring the delay and calculating and substantiating the costs can be difficult, time consuming, require the assistance of costly accounting and consulting support, and distract or overwhelm field and district staffs. Delays and delay damages are often at the heart of many claims. One of the most difficult and contentious areas of claims concerns the recovery of overheads, particularly the recovery of extended, underabsorbed, or unabsorbed home office overhead, including overhead costs calculated using the Eichleay Formula. Fortunately, effective techniques to address the recovery of home office overhead are being used by DOTs across the country. You are being asked to help identify the scope of the issue in your state and the techniques your state has used to address the recovery of home office overhead costs.

The information you supply will provide valuable input to the development of a summary report of current research and practices addressing this important topic.

Please return your completed questionnaire, along with any supporting documents, by July 31, 2001 to:

Scott Lowe, Senior Vice President
Trauner Consulting Company, Inc.
1617 JFK Blvd., Suite 600
Philadelphia, PA 19103

If you have any questions, please contact Mr. Lowe at (215) 814-6400, or e-mail him at:

scott.lowetraunerconsulting.com

Below, please provide the name of the person completing this questionnaire or someone else who may be contacted to obtain any needed follow-up information:

Name: _____
Title: _____
Agency: _____
Street Address: _____
Town/State/Zip: _____
Telephone: _____
Fax: _____
E-mail: _____

Please indicate if the answers given in this survey are intended to be from your agency or represent your personal opinion

_____

Thank you very much for your help.

Scope of Issue

1. How does the DOT define the term "claim"?
   _____A. It is defined in the specifications, which also requires the contractor to certify the claim.
   _____B. The point at which a contractor's proposal becomes a claim is defined in the specifications, but the specifications do not require the contractor to certify the claim.
   _____C. Any request by a contractor for additional compensation is considered to be a claim.
   _____D. Other, please explain:

   _____

   _____

   Also, please attach the DOT's specification language addressing the definition or certification of a claim, and the DOT's claims or disputes resolution procedure, if they exist.

2. What is the average number of claims received from a contractor on DOT construction projects each year over the last 10 years?
   _____A. 1
   _____B. 2 to 5
   _____C. 5 to 10
   _____D. 10 or more

   Also, please attach copies of any information concerning the frequency, content, costs, and other relevant information regarding claims that the DOT may have compiled.

   Comment: _____

   _____

3. If few or no claims were received, to what would you attribute this outcome?

   _____

   _____

4. Has your state maintained its sovereign immunity with regard to construction contract claims and related lawsuits by contractors?

   _____ Yes _____ No

   Comment: _____

   _____

5. Through claims, proposals, requests for equitable adjustment, or other means, have contractors on the DOT's construction projects asked for extensions to the contract completion date based on delays that were the responsibility of the DOT?

   _____ Yes _____ No

   Comment: _____

   _____

6. If the answer to Question 5 was yes, have contractors ever asked for additional compensation for these delays?

   _____ Yes _____ No

   Comment: _____

   _____

7. If the answer to Question 6 was yes, how many times on average each year over the last 10 years have contractors asked for additional compensation for delay?

_____A. 1 time
_____B. 2 to 5 times
_____C. 5 to 10 times
_____D. 10 or more times

Comment: _____

_____

8. If the answer to Question 6 was no, why have contractors not asked to be paid for delays caused by the DOT?

_____A. Contractors rarely ask for such compensation in this state.
_____B. The specification prohibits payment for delay (no-damage-for-delay clause).
_____C. Other, please explain:

_____

_____

9. As part of their request to be paid for delays, have contractors ever asked to be reimbursed for unabsorbed home office overhead, underabsorbed home office overhead, extended home office overhead, or costs calculated using an Eichleay or similar apportionment formula?

_____ Yes _____ No

Comment: _____

_____

10. If the answer to Question 9 was yes, what percentage of contractor's requests for payment of delay costs have included requests for such home office overhead costs as well?

_____A. 1% to 10%
_____B. 10% to 20%
_____C. 20% to 50%
_____D. 50% to 75%
_____E. 75% to 100%

Comment: _____

_____

11. If the answer to Question 9 was no, why haven't contractors asked to be reimbursed for such home office costs?

_____A. Contractors do not ask to be paid such home office overhead costs in this state.
_____B. The DOT's specifications prohibit payment of such costs.
_____C. Legally, it has been determined that contractors are not entitled to recover such costs from the DOT.
_____D. Other, please explain:

_____

_____

_____

12. Has the DOT ever paid a contractor such home office overhead costs?

_____ Yes _____ No

Comment: _____

_____

13. If the answer to Question 12 is yes, what was the average annual frequency of such payments over the last 10 years?

_____A. 1 time
_____B. 2 to 5 times
_____C. 5 to 10 times
_____D. 10 or more times

Comment: _____

_____

14. If the answer to Question 12 is yes, check off any adjustments or limitations on such payments that were applied.

_____A. The compensable delay was limited to delays caused by suspensions of work versus extra work or additional work.
_____B. Compensable delays were adjusted for noncompensable delays, such as weather.
_____C. The daily home office overhead rate was adjusted to remove unallowable costs such as marketing and entertainment expenses or bad debt expenses.
_____D. The compensable delay was limited for some other reason. Please explain: _____

_____

_____

_____E. The daily home office overhead rate was limited for some other reason. Please explain: _____

_____

_____

15. If the answer to Question 9 was yes, what methods or approaches did contractors use to calculate such home office costs?

_____A. The Eichleay Formula
_____B. Other apportionment formulas such as the Canadian or Allegheny Formulas
_____C. As a percentage of other costs sought
_____D. Other, please explain: _____

_____

16. If the answer to Question 12 was yes, what were the methodologies or approaches used by the DOT to arrive at the amount the contractors were paid for such home office overhead costs? (More than one box may be checked.)

_____A. The amount paid was the result of negotiations with the contractor, and the DOT did not use a specific approach or methodology.
_____B. The amount paid was the result of a decision by a judge, arbitrator, or other third party, and the DOT did not use a specific approach or methodology.
_____C. The approach or methodology used by the DOT was developed internally by the DOT.
_____D. The approach or methodology used by the DOT was recommended by an attorney or consultant.
_____E. The approach or methodology used was set forth in the specifications.
_____F. Other, please explain: _____

_____

If the methodology or approach used by the DOT was set forth in the specifications or is contained within written policies or procedures, please attach.

17. Did the approach or methodology used by the DOT to calculate the payment for such home office overhead costs rely on the use of the following apportionment formulas?

A. Eichleay Formula	_____ Yes	_____ No
B. Modified Eichleay Formula	_____ Yes	_____ No
C. Canadian Formula	_____ Yes	_____ No
D. Allegheny Formula	_____ Yes	_____ No
E. Other Formulas or Methods	_____ Yes	_____ No
F. Contractor's Option	_____ Yes	_____ No

Please explain other formulas or methods used: _____

_____

If the contractor is given an option, who selects the option, the DOT or the contractor? _____

_____

18. Did the approach or methodology used by the DOT to calculate the payment for such home office overhead costs rely on a predetermined percentage, such as the approach now being used by the Florida DOT?

_____ Yes _____ No

Comment: _____

_____

19. If the answer to Question 18 was yes, please describe the approach or methodology used, including applicable percentages. (Alternatively, please attach the relevant provisions from the specifications and/or internal policies that describe the approach or methodology used and applicable percentages.)

Comment: _____

_____

The Legal Environment

20. Have the courts, contract appeals boards, or other administrative tribunals in the state awarded unabsorbed, underabsorbed, extended home office overhead, or costs calculated using the Eichleay Formula to contractors on state construction projects?

_____ Yes _____ No

Comment: _____

_____

Please attach copies of the decisions of courts, appeals boards, or any other tribunals, including administrative boards, for which records of decisions are maintained that relate to the contractor's recovery of home office overhead.

21. Have the courts, appeals boards, or other tribunals specifically denied a contractor's entitlement to recovery of such home office overhead costs?

_____ Yes _____ No

Comment: _____

_____

22. If the answer to Question 21 is yes, what was the basis for this denial? (More than one box may be checked.)
_____A. Contractor was unable to support the home office overhead costs claimed.
_____B. Home office overhead costs are not costs that a contractor is entitled to recover as a result of the state's delay.
_____C. The contractor's forces were not on standby and thus the contractor was not entitled to recover home office overhead costs.
_____D. The contractor's work was not suspended or not suspended for an indefinite period of time.
_____E. The contractor failed to prove that the state was responsible for the contractor's delay.
_____F. The specifications prohibited payment of home office overhead costs.
_____G. The contractor was able to (or should have been able to) obtain work to replace the work delayed by the state and thus did not "underabsorb" home office overhead.
_____H. Other, please explain: _____

Please attach a copy of the relevant portions of the decisions denying the contractor recovery of home office overhead costs.

Accounting Support

23. Do the DOT's specifications provide for a right to audit the contractor's records?

_____ Yes _____ No

Comment: _____

If yes, please attach a copy of the relevant specification.

24. Has the DOT ever audited a contractor's records?

_____ Yes _____ No

Comment: _____

25. If the answer to Question 24 is yes, what is the annual frequency of audits conducted of contractor's records for the purposes of evaluating a contractor's request for added compensation due to the DOT's delay to the project?
_____A. 1 per year
_____B. 2 to 5 times per year
_____C. 5 to 10 times per year
_____D. 10 or more times per year

Comment: _____

26. If the answer to Question 24 is yes, what accounting guidelines do the DOT's auditors use to evaluate the contractor's cost?
_____A. The auditor's own good judgment and experience
_____B. Generally accepted accounting principles
_____C. Guidelines set forth in the specifications
_____D. Guidelines set forth in state law
_____F. Federal Acquisition Regulations as set forth in the specifications or required by state law
_____G. Federal Acquisition Regulations, though these guidelines are not set forth by specification or state law
_____H. Other, please explain: _____

Please attach copies of relevant specifications and/or guidelines used by the DOT's auditors.

27. Has the DOT used private accounting firms or consultants to audit the contractor's records and/or evaluate the contractor's requests for added compensation for delay?

_____ Yes _____ No

Comment: _____

_____

28. If the answer to Question 27 is yes, what has been the average annual expenditures for such services over the last 10 years? _____

_____

Comment: _____

_____

Thank You!

Remember! Please enclose any information you believe is relevant to the answers given in the questionnaire, including applicable research results, policies, specification language, case law, and other information that might be of interest to other states.

APPENDIX B

Respondents to the State Transportation Agency Survey

Arizona
Arkansas
California
Colorado
Connecticut
Florida
Georgia
Illinois
Indiana
Iowa
Maine
Maryland
Minnesota
Montana
Nebraska
New Jersey
New York
North Dakota
Ohio
Oregon
Tennessee
Texas
Virginia
Washington
West Virginia
Wisconsin

APPENDIX C

Tabulated Results from the State Survey

STATE TRANSPORTATION AGENCY SURVEY RESPONSES—QUESTIONS 1 THROUGH 5					
	Questions				
	1	2	3	4	5
State	A B C D	A B C D	Written	Yes/No	Yes/No
Arizona	A and D attachments	A	Y	No	Yes
Arkansas	A	D		Yes	Yes
California	A and D attachments	C	Y	No	Yes
Colorado	A	B	Y	No	Yes
Connecticut	D and attachment	C		Yes	Yes
Florida	A and B	D		No	Yes
Georgia	A	B	Y	No	Yes
Illinois	A	C		NA	Yes
Indiana	A	B		No	Yes
Iowa	C	D		No	Yes
Maine	C	B	Y	NA	Yes
Maryland	A	C		No	Yes
Minnesota	A	D		No	Yes
Montana	A	B	Y	No	Yes
Nebraska	B	A	Y	No	Yes
New Jersey	D	C		No	Yes
New York	D	B	Y	No	Yes
North Dakota	A	A	Y	No	Yes
Ohio	A and D	B	Y	No	Yes
Oregon	A	D		No	Yes
Tennessee	D	B		Yes	Yes
Texas	D	D		Yes	Yes
Virginia	A	D		No	Yes
Washington	A Spec. on the Web. Section 1.09.11(2)	B	Y	No	Yes
West Virginia	A and D	B	Y	Yes	Yes
Wisconsin	C	D		Yes/No	Yes
TOTALS	A -17 B - 2 C - 3 D - 9	A - 3 B - 10 C - 5 D - 8	See response by state to Question No. 3	Yes - 6 No -19 NA - 2	Yes - 26 No - 0

Notes: NA = not answered or not applicable; Y = response received.

STATE TRANSPORTATION AGENCY SURVEY RESPONSES—QUESTIONS 6 THROUGH 10

State	Questions				
	6 Yes/No	7 A B C D	8 A B C	9 Yes/No	10 A B C D E
Arizona	Yes	A	NA	Yes	N/A
Arkansas	Yes	B	NA	Yes	C
California	Yes	D	C	Yes	C
Colorado	Yes	D	NA	Yes	C
Connecticut	Yes	C	NA	Yes	D
Florida	Yes	D	NA	Yes	E
Georgia	Yes	A	NA	Yes	E
Illinois	Yes	D	NA	Yes	D
Indiana	Yes	B	NA	Yes	C
Iowa	Yes	C	NA	Yes	A
Maine	No	NA	A	Yes	A
Maryland	Yes	C	NA	Yes	B
Minnesota	Yes	B	NA	Yes	C
Montana	Yes	B	NA	Yes	C
Nebraska	Yes	A	NA	Yes	A
New Jersey	Yes	C	NA	Yes	C
New York	Yes	D	NA	Yes	A
North Dakota	Yes	A	NA	Yes	D
Ohio	Yes	B	NA	Yes	B
Oregon	Yes	D	NA	Yes	E
Tennessee	Yes	A	NA	Yes	A
Texas	Yes	D	NA	Yes	D
Virginia	Yes	D	NA	Yes	E
Washington	Yes	C	NA	Yes	C
West Virginia	Yes	B	C	Yes	B
Wisconsin	Yes	C	NA	Yes	C
TOTALS	Yes - 25 No - 1	A - 5 B - 6 C - 6 D - 8 NA - 1	A - 1 B - 0 C - 2 NA - 23	Yes - 26 No - 0	A - 5 B - 3 C - 9 D - 4 E - 4 NA - 1

Notes: NA = not answered or not applicable.

STATE TRANSPORTATION AGENCY SURVEY RESPONSES—QUESTIONS 11 THROUGH 15

State	Question				
	11 A B C D	12 Yes/No	13 A B C D	14 A B C D E	15 A B C D
Arizona	NA	Yes	A	A C	A
Arkansas	NA	No	NA	NA	A C
California	D	Yes	D	C D E	A
Colorado	NA	Yes	A	B	A C
Connecticut	NA	Yes	B	A B C D E	A D
Florida	NA	Yes	D	A E	A
Georgia	NA	Yes	A	B D	D
Illinois	NA	Yes	D	D E	D
Indiana	NA	Yes	B	A	A B D
Iowa	NA	Yes	B	B	C
Maine	A	Yes	A	D	C
Maryland	NA	Yes	B	A B C	A C
Minnesota	NA	No	NA	NA	A C
Montana	NA	Yes	B	A B	A C
Nebraska	NA	No	NA	NA	A C
New Jersey	NA	Yes	B	D	A C D
New York	NA	Yes	D	E	C
North Dakota	NA	No	NA	NA	C
Ohio	NA	Yes	B	A B C D	A
Oregon	NA	Yes	D	A B C	A C D
Tennessee	NA	Yes	A	A	A C
Texas	NA	Yes	D	A B C	A C D
Virginia	NA	Yes	D	B C E	A C
Washington	NA	Yes	B	B C D	A
West Virginia	NA	Yes	A	A B C	A D
Wisconsin	NA	No	NA	NA	A
TOTALS	A - 1 B - 0 C - 0 D - 1 NA - 24	Yes - 21 No - 5	A - 6 B - 8 C - 0 D - 7 NA - 5	A -11 B -12 C -10 D - 8 E - 6	A - 20 B -1 C - 15 D - 8

Notes: NA = not answered or not applicable.

STATE TRANSPORTATION AGENCY SURVEY RESPONSES—QUESTIONS 16 THROUGH 17

State	Question						
	16	17					
	A B C D E F	A B C D E F					
Arizona	F	A - Yes	B - No	C - No	D - No	E - No	F - No
Arkansas	NA	A - No	B - No	C - No	D - No	E - No	F - No
California	F	A - Yes	B - No	C - No	D - No	E - No	F - No
Colorado	A B E	A - Yes	B - Yes	C - No	D - No	E - Yes	F - No
Connecticut	B D E	A - Yes*	B - No	C - No	D - No	E - Yes †	F - No
Florida	A B C D E	A - Yes*	B - Yes*	C - No	D - No	E - Yes†	F - No
Georgia	E	A - No	B - No	C - No	D - No	E - Yes	F - No
Illinois	C	A - No	B - No	C - No	D - No	E - Yes	F - No
Indiana	A	A - No	B - No	C - No	D - No	E - No	F - No
Iowa	A	A - No	B - No	C - No	D - No	E - No	F - No
Maine	A	NA					
Maryland	D E	A - No	B - No	C – No	D - No	E - Yes	F - No
Minnesota	A B	A - No	B - No	C - No	D - No	E – No	F - No
Montana	A D	A - Yes (#15)	B - No	C - No	D - No	E - Yes (#15)	F - No
Nebraska	NA	NA					
New Jersey	A	A - No	B - No	C - No	D - No	E - No	F - No
New York	C D E	A - No	B - No	C - No	D - No	E - Yes	F - No
North Dakota	NA	NA					
Ohio	A B	A - Yes	B - No	C - No	D - No	E - No	F - No
Oregon	A B F	A - Yes	B - Yes	C - No	D - No	E - Yes	F - No
Tennessee	A C	A - No	B - No	C - No	D - No	E - No	F - No
Texas	F	A - Yes	B - No	C - No	D - No	E - No	F - No
Virginia	C	A - No	B - No	C - No	D - No	E - No	F - No (Refer to #14)
Washington	A	NA					
West Virginia	A B D	A - Yes	B - No	C - No	D - No	E - No	F - No
Wisconsin	NA	NA					
TOTALS	A - 13 B - 7 C - 5 D - 6 E - 6 F - 4	A - Yes -10 No - 11	B - Yes - 3 No - 18	C - Yes - 0 No - 21	D - Yes - 0 No - 21 NA - 5	E - Yes - 9 No - 12	F -Yes - 0 No - 21

Notes: NA = not answered or not applicable.

*Old.

†New.

STATE TRANSPORTATION AGENCY SURVEY RESPONSES—QUESTIONS 18 THROUGH 22					
State	Question				
	18 Yes/No	19 Written	20 Yes/No	21 Yes/No	22 A to H
Arizona	No		No	No	NA
Arkansas	No		No	Yes	H
California	Yes	Y	Yes	Yes	C D E G H
Colorado	Yes	Y	Yes	Yes	A D E
Connecticut	Yes	Y	Yes	Yes	A C E
Florida	Yes	Y	Yes	No	NA
Georgia	Yes	Y	No	No	NA
Illinois	No		NA	NA	NA
Indiana	No		No	No	NA
Iowa	No		No	No	NA
Maine	NA		No	No	NA
Maryland	No		No	Yes	A E G
Minnesota	No		No	No	NA
Montana	No		Yes	NA	NA
Nebraska	NA		NA	NA	NA
New Jersey	No		No	No	NA
New York	Yes	Y	No	Yes	NA
North Dakota	NA		No	No	NA
Ohio	No	Y	Yes	No	NA
Oregon	No		Yes	Yes	A C D E
Tennessee	No		No	NA	NA
Texas	No		No	No	NA
Virginia	Yes	Y	No, not in VDOT suits, but with Fairfax County	NA	NA
Washington	No		Yes	Yes	A E
West Virginia	No	Y	Yes	Yes	H
Wisconsin	NA		No	No	NA
TOTALS	Yes - 7 No - 15	See response by state to Question 19.	Yes - 9 No - 15	Yes - 9 No - 12	A - 5 B - 0 C - 3 D - 3 E - 6 F - 0 G - 2 H - 3 NA - 18

Notes: NA = not answered or not applicable; Y = response received.

STATE TRANSPORTATION AGENCY SURVEY RESPONSES—QUESTIONS 23 THROUGH 26

State	Question 23 Yes/No	24 Yes/No	25 A B C D	26 A to G
Arizona	Yes	Yes	D	A B C D E
Arkansas	Yes	Yes	D	A B C D E
California	Yes	Yes	D	B E
Colorado	Yes	Yes	B	B F
Connecticut	Yes	Yes	C	B
Florida	Yes	Yes	D	A B G
Georgia	Yes	Yes	A	C (attached)
Illinois	Yes	NA	NA	NA
Indiana	No	NA	NA	NA
Iowa	No	No	NA	NA
Maine	Yes	Yes	NA	B
Maryland	Yes	Yes	B	A B
Minnesota	No	No	NA	NA
Montana	Yes	Yes	A	A
Nebraska	No	No	NA	NA
New Jersey	No	Yes	NA	B
New York	Yes	Yes	B	B C D
North Dakota	Yes	Yes	A	A B C D F
Ohio	No	Yes	A	F
Oregon	Yes	Yes	A	A B
Tennessee	Yes	No	NA	NA
Texas	No	No	NA	NA
Virginia	No	Yes	<1 per year	NA
Washington	Yes	Yes	A	B D
West Virginia	Yes	Yes	B	A B E
Wisconsin	No	No	NA	NA
TOTALS	Yes - 17 No - 9	Yes - 18 No - 6 NA - 2	A - 6 B - 4 C - 1 D - 4 NA - 10	A - 8 B -14 C - 5 D - 5 E - 4 F - 3 G - 1 NA - 9

Notes: NA = not answered or not applicable.

STATE TRANSPORTATION AGENCY SURVEY RESPONSES—QUESTIONS 27 THROUGH 28

State	Question	
	27 Yes/No	28 Information
Arizona	No	NA
Arkansas	No	NA
California	Yes	An estimated $20,000 per year
Colorado	Yes	Information Not Available
Connecticut	Yes	NA
Florida	Yes	Expenditures are in excess of $50,000 a year
Georgia	Yes	Average of over $20,000 per year
Illinois	NA	NA
Indiana	NA	NA
Iowa	No	NA
Maine	NA	NA
Maryland	Yes	±$100,000
Minnesota	Yes	$25,000
Montana	Yes	$50,000 in the last 5 years
Nebraska	NA	NA
New Jersey	Yes	Only performed as part of litigation discovery, records not kept
New York	Yes	Unknown
North Dakota	Yes	$25,000–$50,000
Ohio	Yes	Not tracked
Oregon	Yes	$20,000–$75,000 per claim
Tennessee	No	NA
Texas	No	NA
Virginia	No	NA
Washington	Yes	NA
West Virginia	No	NA
Wisconsin	Yes	$5,000
TOTALS	Yes - 15 No - 7	

Notes: NA = not answered or not applicable.

RESPONSE BY STATE TO QUESTION NO. 3	
State	Question 3—If few or no claims were received, to what would you attribute this outcome?
Arizona	ADOT's Partnering Program.
Arkansas	
California	Good communication and partnering between resident engineer and contractor's representative. Clear specifications and accurate and descriptive plans.
Colorado	It is CDOT's policy to share the risk with contractors. Willingness to share the risk reduces the frequency of contractor claims. CDOT also gives the project engineer the authority to resolve issues as they arise. CDOT has a philosophy of compensating contractors fairly for additional costs for extra work or compensable delays. The spirit of partnering fosters a cooperative atmosphere in which disputes can be resolved without resorting to the formal claims process.
Connecticut	
Florida	
Georgia	When GDOT receives a Notice of Potential Claim, it reviews the issue and provides a detailed contractual and factual response.
Illinois	
Indiana	
Iowa	
Maine	Scope of work clearly defined, construction personnel knowledgeable and partner with contractor.
Maryland	
Minnesota	
Montana	Good, clear plans based on very good preconstruction data.
Nebraska	Good working relationships. Adjustments are made to the contract and agreements as they occur to avoid claims.
New Jersey	
New York	Efficient and fair process of resolving disputes while contract is ongoing. Also extensive use of changed condition clauses and time-related damage language.
North Dakota	Good project management, resolving issues before they turn into claims.
Ohio	ODOT has few claims because our district/field construction personnel are knowledgeable of contractor's rights to compensation for delays, changed conditions, etc. Also we have policies addressing these issues.
Oregon	
Tennessee	
Texas	
Virginia	
Washington	Partnering, enlightened managers, and prompt attention.
West Virginia	Resolving problems at project and district level and negotiated settlements.
Wisconsin	

RESPONSE BY STATE TO QUESTION 19	
State	Question 19—If the answer to Question 18 is yes, please describe the approach or methodology used, including applicable percentages. (Alternatively, please attach the relevant provisions from the specifications and/or internal policies that describe the approach or methodology used and applicable percentages.)
Arizona	
Arkansas	
California	As stated above, 5% of the contract change order amount is considered the portion of home office overhead compensated to the contractor via the change order. 5.5% of the contract change order amount is estimated to be compensated via the contract change order for field office overhead.
Colorado	Specification 109.10 has been attached.
Connecticut	See new specification Section 1.11.
Florida	See Sections 5-12 and 5-13 of attached specifications.
Georgia	Refer to Specification 105.13.B.6.e.
Illinois	
Indiana	
Iowa	
Maine	
Maryland	
Minnesota	
Montana	
Nebraska	
New Jersey	
New York	10%.
North Dakota	
Ohio	A copy of our draft 2002 specification is attached that will utilize a percentage approach (changing the answer to the previous question from No to Yes in the future). The Ohio contractor's association wishes a higher percentage.
Oregon	
Tennessee	
Texas	
Virginia	The combined field and home office overhead has been limited to 15% of the contract daily dollar value.
Washington	Not answered.
West Virginia	West Virginia did an extensive survey in conjunction with the Contractor's Association of West Virginia (used CPA) to come up with a standard markup for overhead and profit on Force Account Work and arrived at 16%.
Wisconsin	

APPENDIX D

Contractor Survey Questionnaire

National Cooperative Highway Research Program

Project 20-5, Synthesis Topic 32-10

Compensation for Contractor's Home Office Overhead

Questionnaire

Delays to highway construction projects are sometimes unavoidable. If the department of transportation (DOT) is responsible for these delays, one of the consequences may be a request from the contractor for additional compensation for the costs resulting from the state's delay. Measuring the delay and calculating and substantiating the costs can be difficult, time consuming, require the assistance of costly accounting and consulting support, and distract or overwhelm contractor and DOT staffs. Delays and delay damages are often at the heart of many claims. One of the most difficult and contentious areas of claims concerns the recovery of overheads, particularly the recovery of extended, underabsorbed, or unabsorbed home office overhead, including overhead costs calculated using the Eichleay Formula. Fortunately, effective techniques to address the recovery of home office overhead are being used across the country. You are being asked to help identify the scope of the issue in your state and the techniques you have used to address the recovery of home office overhead costs.

The information you supply will provide valuable input to the development of a summary report of current research and practices addressing this important topic.

Please review the questionnaire and think about your responses. I will be calling you during the next week to obtain your answers. If you prefer, you can write you response on the questionnaire and fax or mail it back to me at:

Rick Burnham, Senior Consultant
Trauner Consulting Company, Inc.
945 Concord Street
Framingham, MA 01701
Fax Number: (508) 620-4542

If you have any questions, please call me at (508) 620-4541, or e-mail me at:
rick.burnham@traunerconsulting.com

Below, please provide the name of the person completing this questionnaire or someone else who may be contacted to obtain any needed follow-up information:

Name: _____

Title: _____

Company: _____

Street Address: _____

Town/State/Zip: _____

Fax: _____

E-mail: _____

Thank you very much for your help.

Scope of Issue

1. How do you define the term “claim”?

   _____A. However it is defined in the specifications.
   _____B. Any request by a contractor for additional compensation is a claim.
   _____C. Other, please explain: _____

   _____

2. What is the average number of claims submitted by you or your company on DOT construction projects each year over the last 5 years ?

   _____A. 1
   _____B. 2
   _____C. 3
   _____D. 4 or more

3. If few or no claims were submitted, to what would you attribute this outcome?

   _____

   _____

4. Has the state in which you work maintained its sovereign immunity with regard to construction contract claims and related lawsuits by contractors?

   _____ Yes _____ No

5. Have you asked for extensions to the contract completion date based on delays that were the responsibility of the DOT?

   _____ Yes _____ No

6. If the answer to Question 5 was yes, have you ever asked for additional compensation for these delays?

   _____ Yes _____ No

7. If the answer to Question 6 was yes, how many times on average each year over the last 5 years have you asked for additional compensation for delay?

   _____A. 1 time
   _____B. 2 times
   _____C. 3 times
   _____D. 4 or more times

8. If the answer to Question 6 was no, why not?

   _____A. Have not experienced delays.
   _____B. The specification prohibits payment for delay (no-damage-for-delay clause).
   _____C. Other, please explain: _____

   _____

9. Have you ever asked to be reimbursed for unabsorbed home office overhead, underabsorbed home office overhead, extended home office overhead, or costs calculated using an Eichleay Formula or similar apportionment formula?

   _____ Yes _____ No

10. If the answer to Question 9 was no, why haven't you asked to be reimbursed for such home office costs?

_____A. Contractors do not ask to be paid such home office overhead costs in this state.
_____B. The DOT's specifications prohibit payment of such costs.
_____C. Legally, it has been determined that contractors are not entitled to recover such costs from the DOT.
_____D. Other, please explain: _____

_____

11. Have you ever been paid for home office overhead costs as part of the request to be paid for delays?

_____ Yes _____ No

12. If the answer to Question 11 was yes, what was the average annual frequency of such payments over the last 5 years?

_____A. 1 time
_____B. 2 times
_____C. 3 times
_____D. 4 or more times

13. If the answer to Question 11 was yes, check off any adjustments or limitations on such payments that were applied.
_____A. The compensable delay was limited to delays caused by suspensions of work versus extra work or additional work.
_____B. Compensable delays were adjusted for noncompensable delays, such as weather.
_____C. The daily home office overhead rate was adjusted to remove unallowable costs such as marketing and entertainment expenses or bad debt expenses.
_____D. The compensable delay was limited for some other reason. Please explain: _____

_____

_____E. The daily home office overhead rate was limited for some other reason. Please explain: _____

_____

14. If the answer to Question 9 was yes, what methods or approaches did you use to calculate such home office costs?
_____A. The Eichleay Formula
_____B. Other apportionment formulas such as the Canadian or Allegheny Methods
_____C. As a percentage of other costs sought
_____D. Other, please explain: _____

_____

15. Did the approach or methodology used by the DOT to calculate the payment for such home office overhead costs rely on the use of the following apportionment formulas?

A. Eichleay Formula	_____	Yes	_____	No
B. Modified Eichleay Formula	_____	Yes	_____	No
C. Canadian Formula	_____	Yes	_____	No
D. Allegheny Formula	_____	Yes	_____	No
E. Other Formulas or Methods	_____	Yes	_____	No
F. Your Option	_____	Yes	_____	No

Please explain other formulas or methods used: _____

_____

16. Did the approach or methodology used by the DOT to calculate the payment for such home office overhead costs rely on a predetermined percentage, such as the approach now being used by the Florida DOT?

_____ Yes _____ No

17. If the answer to Question 16 was yes, please describe the approach or methodology used, including applicable percentages.

Comment: _____

_____

_____

_____

_____

_____

The Legal Environment

18. Have the courts, contract appeals boards, or other administrative tribunals in the state awarded unabsorbed, underabsorbed, extended home office overhead, or costs calculated using the Eichleay Formula to contractors on state construction projects?

_____ Yes _____ No

19. Have the courts, appeals boards, or other tribunals specifically denied a contractor's entitlement to recovery of such home office overhead costs?

_____ Yes _____ No

20. If given a choice, you would prefer to:

_____A. Continue having the courts determine the overhead rate based on the Eichleay Formula.

_____B. Work with a pre-established overhead rate, even if it is less than your actual rate.

_____C. Work with an established procedure for auditing home office overhead rates.

_____D. Have an audit of home office overhead mandatory for work with DOTs.

_____E. Other, please explain: _____

_____

_____

_____

_____

_____

Accounting Support

21. Do the DOT's specifications provide for a right to audit your records?

    _____ Yes _____ No

22. Has the DOT ever audited your records?

    _____ Yes _____ No

23. Have your home office costs ever been audited?

    _____ Yes _____ No

24. If the answer to number 22 is yes, what was the audited rate?'_____ %

25. What is your average annual revenue from DOT work?

    _____ Less than 1 million dollars.
    _____ 1 million to 5 million dollars.
    _____ 5 million to 20 million dollars.
    _____ Over 20 million dollars.

Thank You!

APPENDIX E

Tabulated Results of the Contractor Survey

CONTRACTOR SURVEY RESPONSES—QUESTIONS 1–12

Contractor	Question											
	1 A–C	2 A–D	3 Written	4 Yes/No	5 Yes/No	6 Yes/No	7 A–D	8 A–C	9 Yes/No	10 A–D	11 Yes/No	12 A B C D
1	A C	NA	Y	N	Y	N	NA	B C	N	D	N	NA
2	A	A	Y	NA	Y	Y	A	NA	Y	NA	N	NA
3	B	D	NA	N	Y	Y	D	C	N	D	Y	D
4	A	B	NA	N	Y	Y	A	NA	N	B	N	NA
5	C	C	Y	Y	Y	Y	A	NA	Y	NA	Y	A
6	A	D	NA	N	Y	Y	D	NA	Y	NA	Y	D
7	C	B	Y	Y	Y	Y	A	NA	Y	NA	Y	D
8	C	A	Y	N	Y	Y	A	NA	N	D	N	NA
9	B	D	NA	N	Y	N	NA	C	N	C	N	NA
TOTALS	A - 4 B - 2 C - 4	A - 2 B - 2 C - 1 D - 3 NA - 1	Y - 5 NA - 4	Y - 2 N - 6 NA - 1	Y - 9 N - 0 NA - 0	Y - 7 N - 2 NA - 0	A - 5 B - 0 C - 0 D - 2 NA - 2	A - 0 B - 1 C - 3 NA - 6	Y - 4 N - 5 NA - 0	A - 0 B - 1 C - 1 D - 3 NA - 4	Y - 4 N - 5 NA - 0	A - 1 B - 0 C - 0 D - 3 NA - 5

Notes: NA = not answered or not applicable; Y = yes; N = no.

CONTRACTOR SURVEY RESPONSES—QUESTIONS 13–25

Contractor	Question												
	13 A –E	14 A–D	15 A–F	16 Yes/No	17 Written	18 Yes/No	19 Yes/No	20 A –E	21 Yes/No	22 Yes/No	23 Yes/No	24 %	25 A–D
1	NA	NA	NA	Y	Y	NA	NA	B	Y	N	N	NA	C
2	NA	NA	NA	NA	NA	NA	NA	C	Y	Y	N	NA	D
3	D	D	F	N	NA	NA	NA	B	Y	N	N	NA	D
4	NA	NA	NA	NA	NA	Y	NA	B	Y	Y	N	NA	D
5	E	D	E F	N	NA	NA	NA	C	Y	N	N	NA	D
6	B	A	A	N	NA	Y	Y	A	Y	Y	Y	NA	D
7	B C	D	NA	NA	NA	Y	Y	E	Y	Y	Y	NA	C
8	NA	NA	NA	N	NA	NA	NA	B C	NA	N	N	NA	C
9	NA	NA	E	Y	NA	N	N	B	Y	Y	N	100	NA
TOTALS	A - 0 B - 2 C - 1 D - 1 E - 1 NA - 5	A - 1 B - 0 C - 0 D - 3 NA - 5	A - 1 B - 0 C - 0 D - 0 E - 2 F - 2 NA - 5	Y - 2 N - 4 NA -3	Y - 1 N - 0 NA - 8	Y - 3 N - 1 NA - 5	Y - 2 N - 1 NA - 6	A - 0 B - 5 C - 3 D - 0 E - 1	Y - 8 N - 0 NA - 1	Y - 5 N - 4	Y - 2 N - 7		A - 0 B - 0 C - 3 D - 5 NA - 1

Notes: NA = Not answered or not applicable; Y = yes; n = no.

CONTRACTOR SURVEY RESPONSES—QUESTION 3

Contractor	Question 3—If few or no claims were received, to what would you attribute this outcome?
1	Careful reading of the plans and specs, good relationship with the owner's representative.
2	We work very hard to identify problem areas in advance of them becoming critical, thus allowing time for resolution.
3	NA
4	NA
5	Attributed to the interest of the DOT in settling at the lowest level possible.
6	NA
7	An attitude of responsibility and fairness on the part of both contractor and owner.
8	Willingness to compromise. Recognition that the only one who usually wins in a claim situation is the lawyer.
9	NA

Notes: NA = not answered or not applicable.

CONTRACTOR SURVEY RESPONSES—QUESTION 17

Contractor	Question 17—If the answer to Question 16 was yes, please describe the approach or methodology used, including applicable percentages
1	The following costs are reimbursed: Direct labor + 45% Insurance and tax costs + 25% Material costs + 15% Equipment—Monthly bluebook rate/176 for hourly rate without markup for equipment waiting Equipment—Blue book rate for actively used equipment
2	NA
3	NA
4	NA
5	NA
6	NA
7	NA
8	NA
9	NA

Notes: NA = not answered or not applicable.

Abbreviations used without definition in TRB Publications:

AASHO	American Association of State Highway Officials
AASHTO	American Association of State Highway and Transportation Officials
ASCE	American Society of Civil Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
FAA	Federal Aviation Administration
FHWA	Federal Highway Administration
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
IEE	Institute of Electrical and Electronics Engineers
ITE	Institute of Transportation Engineers
NCHRP	National Cooperative Highway Research Program
NCTRP	National Cooperative Transit Research and Development Program
NHTSA	National Highway Traffic Safety Administration
SAE	Society of Automotive Engineers
TCRP	Transit Cooperative Research Program
TRB	Transportation Research Board
U.S.DOT	United States Department of Transportation