To the graduate council

I am submitting the following thesis, "State of the Art of State Departments of Transportation Construction Claims Procedures", written by Jennifer Lynn Duncan I have examined the final copy of this thesis and recommend that it be accepted in partial fulfillment of the requirements for a Master of Science Degree in Civil Engineering.

J. Harold Deatherage, Major Professor

We have read this thesis and recommend its acceptance:

Edwin G. Burdette

Accepted for the council

Associate Vice Chancellor and Dean of The Graduate School

STATE OF THE ART OF STATE DEPARTMENTS OF TRANSPORTATION CONSTRUCTION CLAIMS PROCEDURES

A Thesis
Presented for the
Master of Science
Degree
The University of Tennessee, Knoxville

Jennifer Lynn Duncan
August 2000

ABSTRACT

The following research is on the current state Department of Transportation procedures for highway construction claims. A questionnaire was developed and sent to the fifty state Departments of Transportation to gather information. Once the responses were received, the data were analyzed to determine the procedures currently used by the state Departments of Transportation. A comparison between the Tennessee Department of Transportation and the other respondents was made. Comparisons were also made between all of the state Department of Transportation procedures. Overall, the data showed that the states have adequate methods of prevention and handling of highway construction claims.

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LIST OF ABBREVATIONS

AK	Alaska
AZ	Arizona
AR	Arkansas
CA	California
CT	Connecticut
DE	Delaware
GA	Georgia
HI	Hawaii
IL	Illinois
IN	Indiana
IO	Iowa
KS	Kansas
KY	Kentucky
LA	Louisiana
ME	Maine
MD	Maryland
MA	Massachusetts
MN	Minnesota
MS	Mississippi
MO	Missouri
MT	Montana
NE	Nebraska

NM	New Mexico
NC	North Carolina
ND	North Dakota
OH	Ohio
OR	Oregon
SC	South Carolina
SD	South Dakota
TN	Tennessee
TX	Texas
VT	Vermont
VA	Virginia
WA	Washington
WV	West Virginia
WI	Wisconsin

CHAPTER ONE

INTRODUCTION

In recent years, public highway departments and agencies have experienced an increased number and cost of construction claims.[1] There are a number of reasons for the increased number and cost of construction claims including a more litigious society, industry procedures that delay dispute resolution, lack of awareness of field personnel to quickly resolve disputes, and smaller profit margins of the contractors.[1] Additionally, the increased competition that has lowered profit margins for contractors has been accompanied by more complex projects without increased quality of construction documents.[2] Since construction claims cause a loss of time and money for both the owner and contractor, the Tennessee Department of Transportation (TDOT) has funded research to determine the best way to prevent and handle claims.

1.1 Objective

The purpose of this thesis was to determine the "state of the art" of claims resolution for the state Departments of Transportation. In order to do this, a questionnaire

was created and sent to all fifty state Departments of Transportation to gather information on their construction claims procedures.

1.2 Research Steps

1. Preparing the questionnaire.

A series of questions were prepared after researching claims prevention, procedures, and analyses from different literary sources (see Chapter Two). The questions were reviewed and discussed with the research team and at that time questions were added and deleted. After the list of questions was finalized, the forty-three remaining questions were placed into seven categories: General Information, General Claims Information, Permits, Scheduling, Types of Claims, Documentation, Handling of the Claim, and the Claims Process. Questions varied from simple yes or no questions to open-ended questions. A copy of the questionnaire can be found in Appendix A.

2. Distributing the questionnaire

The next step was to distribute the questionnaire to each state Department of Transportation. A method of quick response was to use the internet as the media to distribute

the questionnaire. Through the use of Microsoft FrontPage™, a Hypertext Mark-up Language (HTML) file was created and posted on a University of Tennessee internet site (http://web.utk.edu/~jduncan3/newclaims.html). An e-mail could then be sent with a hyperlink to the site. When the hyperlink was clicked, it took the user to the webpage where they could answer the questions and submit the answers. A copy of the HTML file can be found in Appendix B.

The American Association of State Highway and Transportation Officials (AASHTO) directory was used to compile a list of state e-mail addresses. In the event that the state did not have an e-mail address, a hard copy was mailed.

3. Collecting data.

After the user accessed the website, answered the questions, and submitted the results, the data were collected in a Microsoft Excel™ file on the University of Tennessee web server. One spreadsheet received all of the replies. Each column represented one question and each row represented a different respondent. By downloading the file

off of the web server, the data could be accessed. Replies received by mail were manually added to the data file.

4. Analysis of the questionnaire results.

Since most of the data were collected electronically, the Excel file could easily be manipulated into separate tables. A detailed summary of the questionnaire results can be found in Chapter Three.

1.3 Research Results

The results of the questionnaire are summarized in Chapter 3. Chapter 4 evaluates the results for the following:

- Summary of current claims procedures for all states
- Prevention of claims
- Claims procedures used

When applied to these three categories, the results can show where the claims procedures are or are not effective.

CHAPTER TWO

LITERATURE REVIEW

This chapter describes research pertaining to each section of the questionnaire. The research discussed here was the basis for formulating questions for the questionnaire discussed in Chapter One.

2.1 Definitions

The words dispute and claim are used frequently throughout this thesis and should be defined. Even though the terms have different meanings, dispute and claim are often used interchangeably. A dispute is any difference of opinion between the contractor and owner and may be resolved at or beyond field level. In some cases, a dispute can escalate to a claim once notice has been filed. A claim is a "request for an equitable adjustment due to a change under a contract."[5] It is important to understand that a change does not necessarily constitute a claim and a claim does not always end in litigation.[5]

2.2 General Claims Information

This section of the survey was used to determine each state's general funding information and frequency of claims. Determining the frequency of claims allows for a subjective measure of performance.[3] Miscellaneous questions were also included in this section.

2.3 Permits

In the past, utility relocation has been a problem for the Tennessee Department of Transportation. This section was used to determine if other states have permitting problems and to determine how often state Departments of Transportation allocate responsibility for obtaining various permits.

2.4 Scheduling

When claims are time-related, such as in delay or acceleration, the schedule becomes important in evaluating job progress.[5] The schedule can indicate where a project deviated from the schedule or how much acceleration took place This section was used to determine how well other states track construction projects with scheduling.

2.5 Types of Claims

This section of the questionnaire focused on the types of claims that the public sector most frequently encounters. Five categories were used to classify claims: substantial change in the scope of work (cardinal change), acts of God (includes natural disasters and differing site conditions), delays, acceleration, and defective plans and specifications.

A change beyond the scope of the contract is commonly referred to as a cardinal change.[5] Such a change can cause the risk of a breach of contract between the owner and contractor if the change is outside of the original scope of work.[5]

Acts of God include differing site conditions, which can be defined as "situations in which construction conditions turn out to be different than those represented in the contract documents, or from what the parties of the contract could reasonably have expected from the information available."[5] These type of claims often lead to litigation.[5] Additionally, a survey conducted on the analysis of highway project construction claims found that differing site conditions only had a 10% frequency, but

made up about 30% of the cost of claims.[1] Other acts of God include flooding, tornadoes, and other natural disasters.

A delay can be defined as loss of time due to neglect by the owner, others performing additional work, or abnormal weather conditions.[6] Because the loss of time could be the result of many factors, delay claims have been found to be the most complicated and difficult to analyze.[5] Delays are often remedied by an extension of contract time due to unforeseen weather conditions.[5] On the other hand, many public construction contracts contain a "no damage for delay" clause, which means that the contractor has to pay for time overruns regardless of any delays (liquidated damages).[5] In these cases, time cannot be extended because of the liquidated damages.[5] The contractor then may decide to submit a claim to recover losses

Acceleration is the speeding up of a job schedule.[5] Often contractors will pay their acceleration cost to avoid paying damages.[5] Other times, the owner will accelerate the job and pay the costs.[5] One possible dispute in this situation is the cost of acceleration, in which good documentation is important.[5] The other category of acceleration is "constructive acceleration."[5] Constructive acceleration is when the contractor feels that the owner

was responsible for delays or did not grant appropriate time extensions.[5]

Defective plans and specifications can easily lead to disputes. Several problems with plans and specifications could include the following:

- Vague drawings that lead to misinterpretation of design intent
- Incorrect or contradicting drawings
- Plans and specifications that are contradictory

In the above cases, the design intent and the actual construction may be different, and both the owner and contractor may have a case for their interpretation. The key to prevention of this type of claim is communication between all parties involved.

2.6 Documentation

This section was to determine what type of documentation state Departments of Transportation maintain and if documentation is increased when there is a potential claim A survey developed with a panel of arbitrators identified the following common types of claims documentation: monitoring payroll, monitoring

productivity, taking photographs and videos, and daily reports.[2]

2.7 Handling of the Claim

Once a claim has occurred, the amount and validity must be analyzed. Several items were identified as important factors in analysis of claims: the construction schedule, video and photographs, daily field reports, firsthand witnesses, expert testimony, correspondence, detailed job costs, forced account costs, home office overhead costs, direct job costs, and productivity calculations.[2]

In the questionnaire, each of these factors was given a rank of importance ranging from not important to very important in order to determine what type of documentation is the most effective.

2.8 Claims Process

A typical claim goes through the following general process.[5]

1. Notice

The contractor writes a letter to the owner as notification of a potential claim. The contractor should

start keeping a separate file of documentation for the potential claim.

2. Response of owner to claim.

The owner should respond to the contractor's letter of a potential claim with his position on the claim. The owner should also start a file of documentation for the claim

3. Initial meeting between contractor and owner.

This meeting should allow both parties to discuss the problem and decide whether the problem can be resolved at this level Several meetings between the contractor and owner should follow as needed if an agreement can be reached at this level.

4. Formal negotiations.

If the contractor and owner cannot resolve the claim, the claim has escalated to a dispute. Several types of dispute resolution may be used including mediation, arbitration, dispute resolution boards, mini-trials, and litigation to resolve the claim.

The above outline of steps is a general procedure and several questions were included in the questionnaire to determine how each state files and resolves a claim. Questions regarding claims resolution procedures were also included, since several procedures have been used to resolve disputes for public sector projects.[5] The fifty states have outlined different procedures for the recovery process, so the following are definitions of common resolution types.[5]

Mediation consists of an outside party listening to both sides and making an informed decision.[5] This type of resolution is not legally binding and is the most informal.[5] Arbitration is commonly the next step beyond mediation. The parties agree to an arbitrator or arbitration board, often from a list of arbitrators from the American Arbitration Association.[5] The procedure is similar to mediation and is usually legally binding (depending on the supplemental conditions of the contract).[5] Dispute resolution boards are established at the beginning of the project and are typically used on large and multiple prime contracts. The board meets with the contractor(s) on a regular basis, such as quarterly, and is updated on project progress and possible claims. Since the board is involved

before the project begins, communication is established and claims can be resolved at a low level.[7]

Mini-trials are one of the newest methods of dispute resolution and combine characteristics of negotiation, mediation, and arbitration.[5] The parties must agree to have a mini-trial.[5] Mini-trial rules are flexible, but generally consist of a mediator and executive board.[5] The mediator serves as a neutral party in resolving the dispute and the trial is overseen by the executive board.[5] At the end of the proceedings, the executive board makes a decision.[5] If a decision cannot be reached, the mediator makes a recommendation.[5]

Litigation is defined as a dispute that is resolved by the court system and is useful if one of the parties is reluctant.[8] The litigation process consists of a judge or jury to evaluate the legal issues.[8] The disadvantages to litigation are the expense of attorneys and court fees and the amount of time it takes to receive a trial.[8]

CHAPTER THREE

DISCUSSION OF QUESTIONNAIRE RESULTS

This chapter is a discussion of the questionnaire results. Thirty-six replies were received from different state Departments of Transportation, a 72% response. Table 1 contains a response matrix that shows which questions were answered by the respective states.

3.1 General Claims Information Results

Table 2 includes the annual highway construction budget, annual number of contracts, and annual number of claims collected from the questionnaire data. With these data, the percentage of contracts resulting in claims was calculated with the following formula:

$$\frac{\text{Annual number of claims}}{\text{Annual number of contracts}} * 100$$

The average percentage of claims was found to be 6.71%. This allowed for determination of states that had below average percentages of claims. States that fell into this category included Alaska, Arizona, Delaware, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Minnesota, Missouri, Montana, Nebraska, North

Table 1. Questionnaire Response Matrix

Question		AK	AZ	AR	CA	CT	DE	GA	HI	IL	IN	IO	KS	KY	LA	ME	MD	MA	MN	MS	MO	MT	NE	NM	NC	ND	OH	OR	SC	SD	TN	TX	VT	VA	WA	WV	WI
Part II	1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	2	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	3	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+
	4	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	5	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	6	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	7	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Part III	1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	2	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Part IV	1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	2	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	3	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	4	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	5	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+		+	+	+	+	+	+		+	+	+	+	+	+	+	+	+
	6	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	7		+	+	+		+	+	+	+	+	+	+	+	+				+		+	+	+	+		+				+		+	+	+			
Part V	1	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+	+	+	+		+	+	+		+	+	+	+	+	+		+	+		+	+
Part VI	1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	2	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			+	+	+	+	+
	3	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+	
Part VII	1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	2	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	3	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	4	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	5	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			+	+	+		+	+	+	+	+	+	+	+	+	+	+	+
	6	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+
	7	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+
	8	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+
	9	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+
	10	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+
	11	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+
Part VIII	1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	2	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	3	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

Table 1. Questionnaire Response Matrix

Question	AK	AZ	AR	CA	CT	DE	GA	HI	IL	IN	IO	KS	KY	LA	ME	MD	MA	MN	MS	MO	MT	NE	NM	NC	ND	OH	OR	SC	SD	TN	TX	VT	VA	WA	WV	WI
4	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+		+	+	+	+	+
5	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+
6	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+
7	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
8	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

Table 2 General Claims Information Results

State	Annual Highway Construction Budget	Annual Number of Contracts	Annual Number of Claims	Percentage of Contracts Resulting in Claims	1 Claim Per X-dollars
Alaska	$ 350,000,000	150	6	4 00%	$ 58,333,333
Arizona	$ 800,000,000	125	0	0 00%	-
Arkansas	$ 360,000,000	288	50	17 36%	$ 7,200,000
California	$ 1,600,000,000	695	320	46 04%	$ 5,000,000
Connecticut	$ 500,000,000	250	20	8 00%	$ 25,000,000
Delaware	$ 230,000,000	100	3	3 00%	$ 76,666,667
Georgia	$ 908,111,000	457	5	1 09%	$ 181,622,200
Hawaii	$ 106,000,000	58	5	8 62%	$ 21,200,000
Illinois	$ 2,000,000,000	1041	15	1 44%	$ 133,333,333
Indiana	$ 707,000,000	550	10	1 82%	$ 70,700,000
Iowa	$ 425,000,000	400	7	1 75%	$ 60,714,286
Kansas	$ 428,058,849	445	3	0 67%	$ 142,686,283
Kentucky	$ 900,000,000	800	10	1 25%	$ 90,000,000
Louisiana	$ 600,000,000	350	3	0 86%	$ 200,000,000
Maine	$ 125,000,000	78	1	1 28%	$ 125,000,000
Maryland	$ 400,000,000	250	20	8 00%	$ 20,000,000
Massachusetts	$ 500,000,000	500	40	8 00%	$ 12,500,000
Minnesota	$ 452,000,000	366	24	6 56%	$ 18,833,333
Mississippi	$ 450,000,000	134	12	8 96%	$ 37,500,000
Missouri	$ 700,000,000	309	6	1 94%	$ 116,666,667
Montana	$ 258,000,000	120	2	1 67%	$ 129,000,000
Nebraska	$ 300,000,000	225	1	0 44%	$ 300,000,000
New Mexico	$ 237,236,000	98	25	25 51%	$ 9,489,440
North Carolina	$ 1,300,000,000	300	125	41 67%	$ 10,400,000
North Dakota	$ 150,000,000	100	6	6 00%	$ 25,000,000
Ohio	$ 971,000,000	794	24	3 02%	$ 40,458,333
Oregon	$ 350,000,000	145	35	24 14%	$ 10,000,000
South Carolina	$ 366,725,000	292	10	3 42%	$ 36,672,500
South Dakota	$ 315,000,000	177	7	3 95%	$ 45,000,000
Tennessee	$ 694,000,000	583	3	0 51%	$ 231,333,333
Texas	$ 2,975,000,000	1027	9	0 88%	$ 330,555,556
Vermont	$ 64,000,000	61	13	21 31%	$ 4,923,077
Virginia	$ 700,000,000	500	25	5 00%	$ 28,000,000
Washington	$ 500,000,000	150	5	3 33%	$ 100,000,000
West Virginia	$ 550,000,000	794	10	1 26%	$ 55,000,000
Wisconsin	$ 575,000,000	475	25	5 26%	$ 23,000,000
Average	**$ 634,642,524**	**366**	**25**	**6 71%**	**$ 25,815,967**

Dakota, Ohio, South Carolina, South Dakota, Tennessee, Texas, Virginia, Washington, West Virginia, and Wisconsin.

Another subjective measure was calculated from the collected data. Since many states have different annual highway construction budgets, the following calculation was made:

$$\frac{\text{Annual Highway Construction Budget}}{\text{Number of Claims}} * 100$$

This calculation allowed for a comparison of claims occurrence as a function of dollar amount. The average dollar amount of the construction budget before a claim occurred was $25,815,967. Any state that was above this average in dollar amount had fewer claims per dollars of the construction budget. This calculation showed similar results to the percentage of contracts resulting in claims. All of the states that had low claims percentages by number of contracts, except Minnesota, North Dakota, and Wisconsin, also fell above average in the claims per dollar amount. One additional state, Mississippi, had an above average number for the dollar amount, but was above average in the percentage of claims.

3.2 Permits Results

Part II of the questionnaire showed that 94% of the states had utility relocation problems. Georgia and Washington were the only two states that did not feel that utility relocation was a problem. The results showed that utility relocation should be assessed since the problem could potentially lead to time related delays.

Additionally, Part III contained open-ended questions to determine permits for which the contractor and state were responsible. The data suggest that typically the contractor is responsible for operational permits, local permits, permits for waste and borrow sites, batch plant permits, and water quality and air pollution permits. Minnesota reported that the contractor is responsible for most or all of the permits in their state. The replies suggested that the states are usually responsible for environmental permits, utility relocation permits, and United States Army Corps of Engineers permits. Louisiana, Texas, Washington, and West Virginia responses showed that these state Departments of Transportation are responsible for most of the permits. Interestingly, all of these states had low percentages of claims.

3.3 Scheduling

The section of the questionnaire on scheduling showed the following results:

- 86% of states require the contractor to submit a schedule at the beginning of the project; another 11% of states sometimes require a schedule to be submitted
- 89% of the schedules are updated throughout the project
- 100% of state Departments of Transportation monitor job schedules or work completed

Of the states that update schedules throughout the project, 42% require updates on a monthly basis.

Figure 1 contains a pie chart that shows how the state Departments of Transportation monitor work completed. The open-ended question was divided into the following categories for analysis:

- Schedule/CPM
- Inspection
- Inspection and Schedule
- Progress Reports
- Other

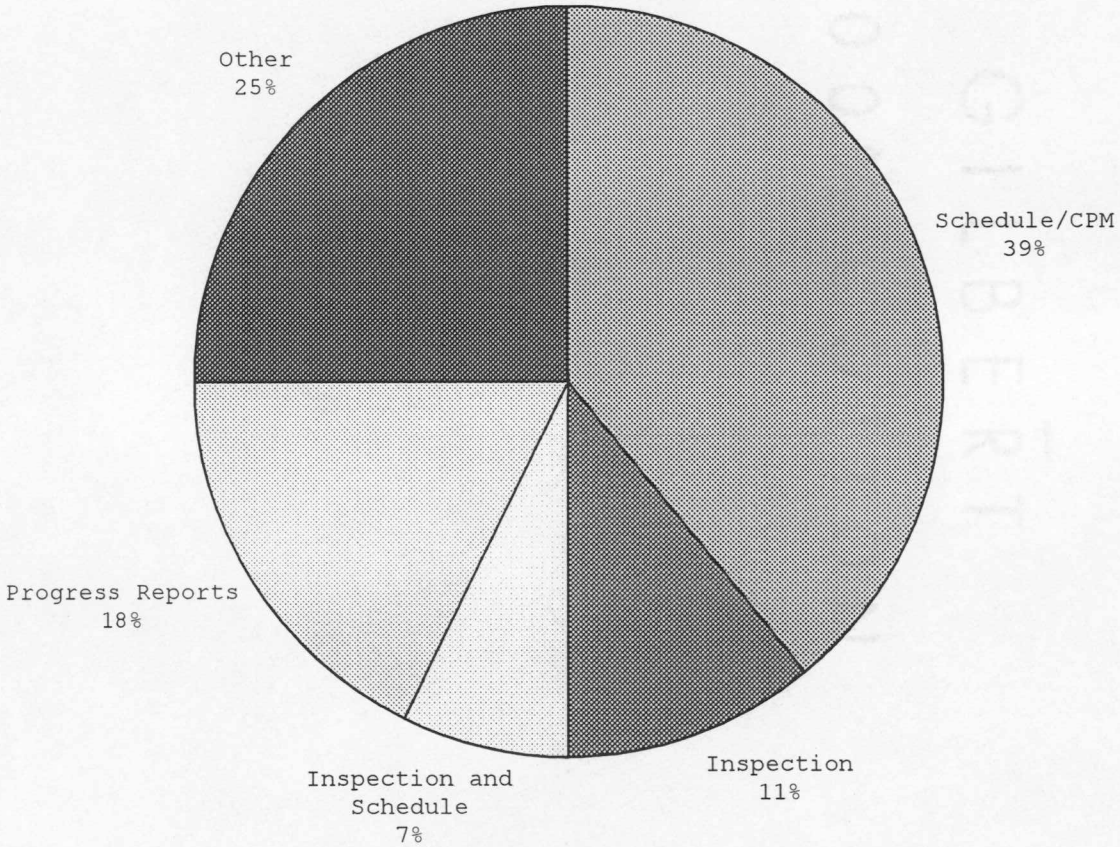

Figure 1. Monitoring Work Completed

The distribution shows that 39% of the states use the schedule to monitor the work completed and another 11% use a combination of inspection and schedule to monitor the work completed. The category titled "other" included responses such as tracking pay items, estimates, or pay for completed work.

Tennessee has started to implement a policy that will not allow contractors to submit bids on a new project if they are 15% behind on any ongoing project. In this case, the percent behind is calculated on a time to money ratio. The Virginia Department of Transportation reported a similar policy: "If a contractor is 10% or more behind schedule on two consecutive monthly progress payments, it can be removed from the VDOT bidder's list." Other policies suggested for behind schedule projects were to pay only for work completed, increase the retainage, request a revised schedule with intent to get back on schedule, or hold periodic meetings between the contractor and the state to get back on schedule.

Figure 2 shows how state Departments of Transportation determine if the contractor is behind schedule. The open-ended question was broken into the following categories for analysis:

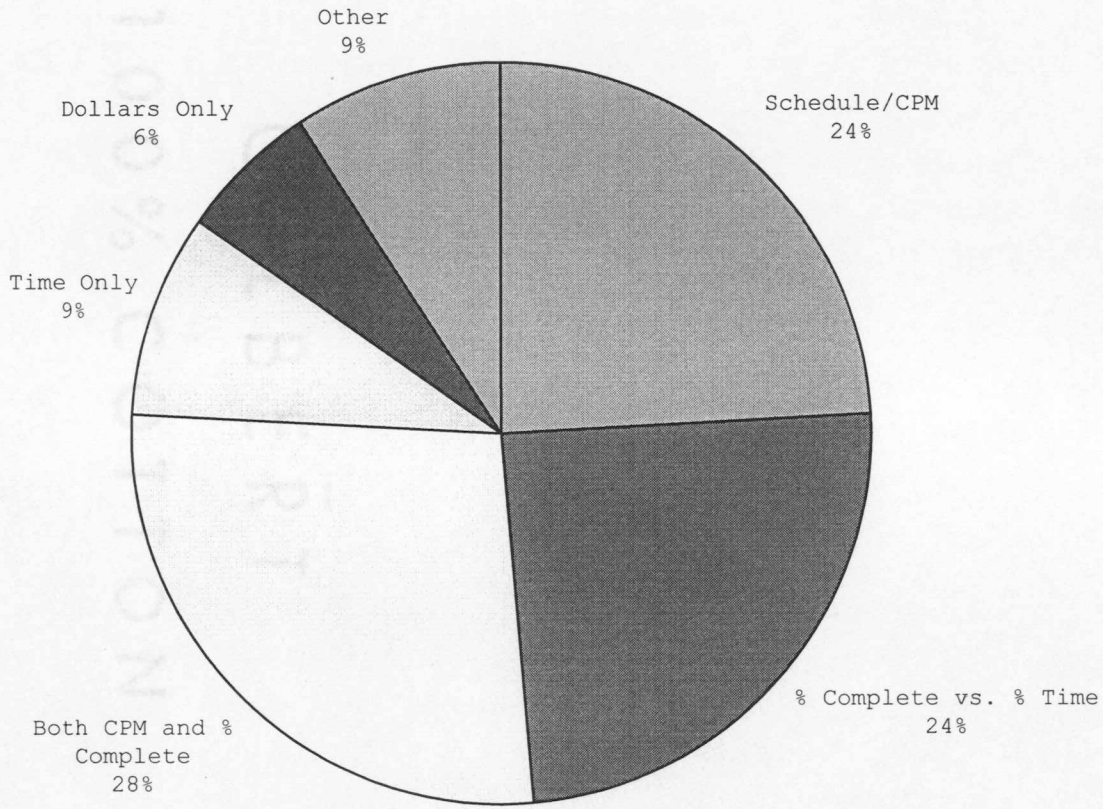

Figure 2. Determination of Behind Schedule Projects

- Schedule/CPM
- % Complete vs. % Time
- Both CPM and % Complete
- Dollars Only
- Time Only
- Other

The data showed that the schedule, % complete vs. % time, and a combination of both were the main ways to determine behind schedule projects.

The state Departments of Transportation also reported the following for contract times:

- 22% use calendar days
- 6% use working days
- 67% use both calendar and working days
- 6% use another method

Of the states that use both calendar and working days, 29% prefer calendar days and 25% prefer working days. The other responses were that the preference was dependent on the project or that the state had no preference.

3.4 Types of Claims

This section of the survey allowed each state Department of Transportation to rank the types of claims they receive in order from one to five, with one being the most commonly occurring. The five categories used were Substantial Change in Scope of Work, Acts of God (including natural disasters and change of conditions), Delays, Acceleration, and Defective Plans and Specifications. Table 3 contains the rank that each state gave the above types of claims. The column was then averaged to determine an overall rank based on all of the replies. Table 3 also shows the final order of the most frequently occurring types of claims based on the average value Delay claims were ranked as the most common type of claim. Defective plans and specifications were ranked second, change in scope was third, acts of God was fourth, and acceleration was last.

3.5 Documentation

This section of the questionnaire was used to determine what types of documentation were kept on a regular basis and if documentation was increased in a potential claim situation. The first question determined

Table 3. Rank of Types of Claims

	Change in Scope	Acts of God	Delay	Acceleration	Defective Plans and Specifications
Alaska	5	1	2	3	4
Arizona	2	4	3	5	1
Arkansas	1	5	2	3	4
California	3	5	2	4	1
Connecticut	4	2	1	5	3
Delaware	1	5	2	4	3
Georgia	2	4	1	5	3
Hawaii	4	5	2	3	1
Illinois	5	4	1	2	3
Indiana	1	5	2	4	3
Iowa	3	4	2	5	1
Kansas	2	3	4	5	1
Kentucky	3	4	1	5	2
Louisiana	2	4	3	5	1
Maryland	3	5	1	4	2
Massachusetts	4	5	2	3	1
Minnesota	2	5	3	4	1
Mississippi	3	5	1	2	4
Montana	2	5	3	4	1
Nebraska	1	2	3	5	4
New Mexico	2	4	1	5	3
North Dakota	1	3	4	5	2
Ohio	5	2	3	4	1
Oregon	3	5	2	4	1
South Carolina	2	5	1	4	3
South Dakota	2	4	1	5	3
Tennessee	1	4	3	5	2
Vermont	2	3	4	5	1
Virginia	2	5	1	3	4
West Virginia	1	5	3	4	2
Wisconsin	3	2	1	5	4
Average	**2 48**	**4.00**	**2.10**	**4.16**	**2.26**

Rank	Type of Claim
1	Delay
2	Defective Plans and Specifications
3	Change in Scope
4	Acts of God
5	Acceleration

what type of documentation was kept on a daily basis. The categories were divided into weather conditions, number of workers, equipment on the jobsite, unusual conditions, productivity, and other. The results can be found in the bar graph in Figure 3. The results showed that all state Departments of Transportation record weather conditions, 86% record the number of workers, 86% record equipment that is on the job site, and 94% record unusual conditions. All of these categories seem to be standard types of documentation that are kept. A smaller percentage, 50%, of states kept productivity records on a daily basis. Some of the other daily documentation reported included field measured quantities, calculations, communication with the contractor, and any visitors on the site.

Figure 4 shows what documentation is typically increased when there is a potential claim. The most common types of documentation were photographs/videos and daily reports. Often productivity and payroll were monitored. Other types of increased claims documentation reported included maintaining a claim file or force account record.

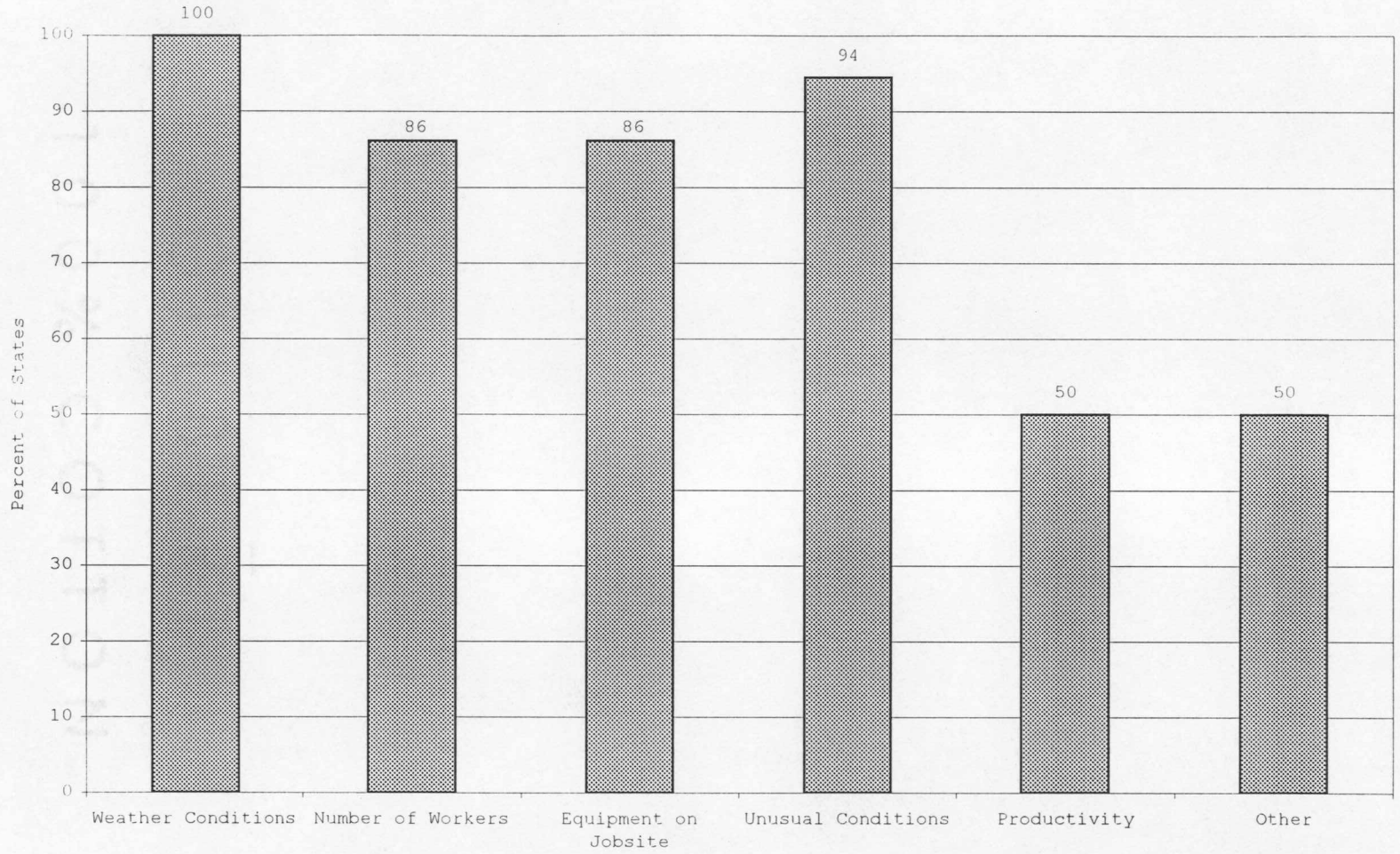

Figure 3. Daily documentation

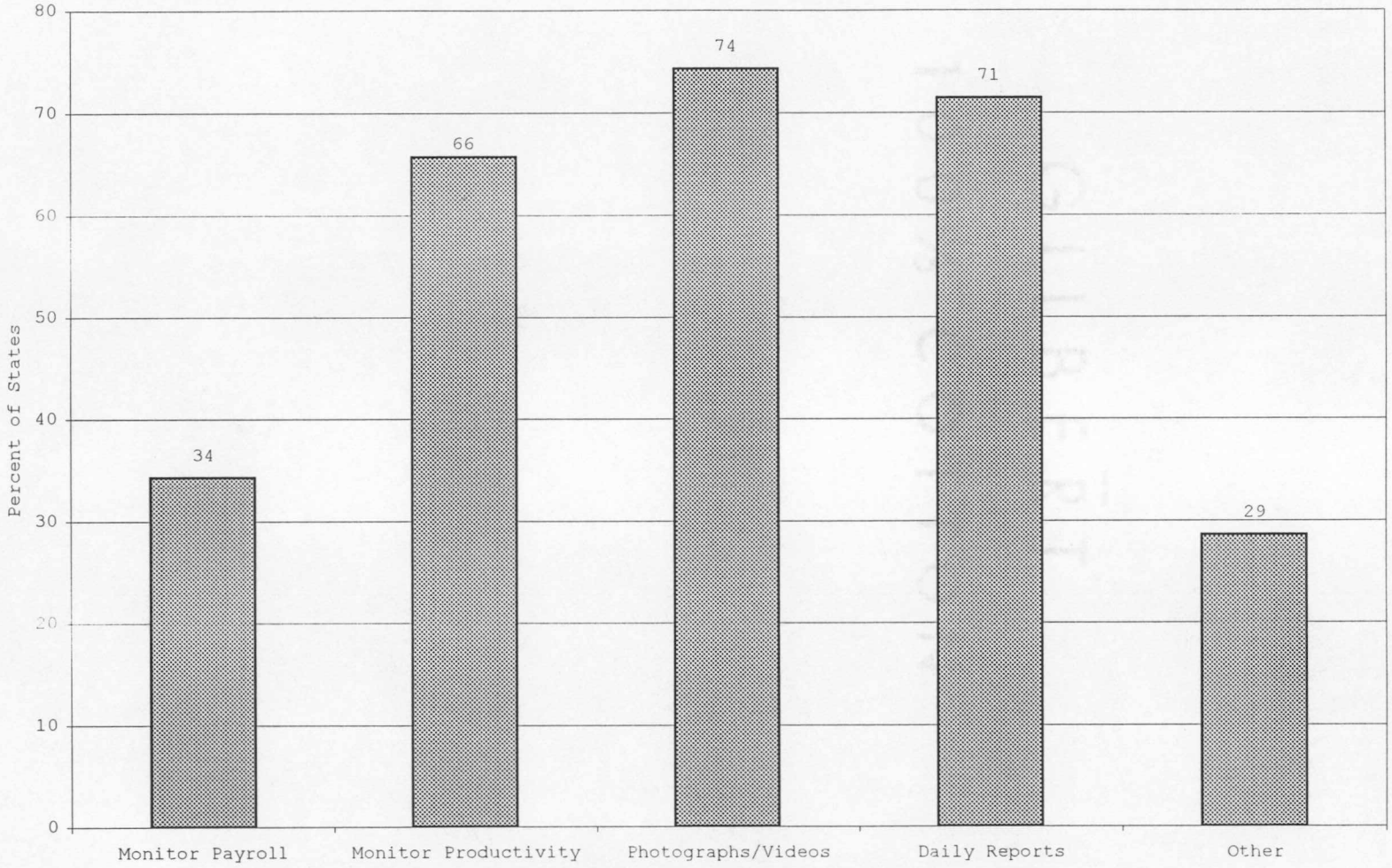

Figure 4. Increased Documentation with Potential Claim

The other question asked in the documentation section was to determine to whom field records are distributed. Most of the states keep their records at the field office, district office, or with the Project Engineer. Connecticut, Kansas, and Wisconsin use an electronic management system and Kentucky has an online system for viewing pay records and contract time summaries.

3.6 Handling of the Claim

Another important part of claims resolution is processing. This section of the questionnaire determined the importance of documentation that is used for processing a claim. Eleven categories were ranked as very important, somewhat important, or not important. The percentages of each response are reported in Table 4. Overall, the construction schedule, daily field reports, firsthand witnesses, correspondence, detailed job costs, and forced account costs were found to be very important. Somewhat important were the video/photographs, expert testimony, home office overhead costs, indirect job costs, and productivity calculations. Overall, none of the categories was found to be not important.

Table 4. Importance of Daily Documentation

	Very Important	Somewhat Important	Not Important
Construction Schedule	80.0%	17.1%	2.9%
Video / Photographs	42.9%	54.3%	2.9%
Daily field reports	91.4%	8.6%	0.0%
Firsthand witness	74.3%	20.0%	5.7%
Expert testimony	39.4%	48.5%	12.1%
Correspondence	94.1%	5.9%	0.0%
Detailed Job Costs	64.7%	35.3%	0.0%
Forced Account Costs	73.5%	20.6%	5.9%
Home Office Overhead Costs	26.5%	58.8%	14.7%
Indirect Job Costs	32.4%	55.9%	11.8%
Productivity Calculations	41.2%	52.9%	5.9%

3.7 Claims Process

This section of the questionnaire determined that 91% of the state Departments of Transportation require the contractor to notify the state of a potential claim before proceeding with the work. Illinois, Maryland, and Massachusetts Departments of Transportation are the only three states which responded that do not require notification before proceeding with the work. Part II also determined that 81% of the states can be sued.

The questionnaire determined that most claims are initially filed with written notice to either the Project Engineer or District Office. From there, it is usually the project engineer, project manager, or chief engineer who decides whether the claim is valid. If the claim is valid, 88% of the states settle at that level. If the claim is denied, the next step is to appeal the claim to a higher level The claim could, depending on which state, be appealed to a higher official, a court of appeals, or the district office. Some state Departments of Transportation reported the next step to be arbitration or mediation. Part II also determined that 81% of the states have a claims resolution process outlined in their specifications.

Figure 5 contains a bar graph that shows what types of methods of settling claims are used by state Departments of Transportation. The most common method, with 86% of the states using at some point, is litigation. Other methods that are commonly used include mediation, arbitration, and dispute resolution boards. Only two states, Massachusetts and Minnesota, use mini-trials as a claims resolution method. Minnesota has used mini-trials as a form of claims resolution only once.

Connecticut reported that their state uses mediation and arbitration in almost all circumstances. Arbitration was generally reported as being used on small contracts under $100,000 - $250,000. Dispute resolution boards were reported as being used on large, complicated projects and is written into the contract specifications. Litigation was reported as being used when all other methods of resolution failed.

The final question in the claims process section was an open-ended question on the most effective method of resolving a claim. Fourteen of the states gave responses that could be categorized Figure 6 shows the most preferred methods as mediation, partnering, and dispute resolution boards. Other preferences, which were not used

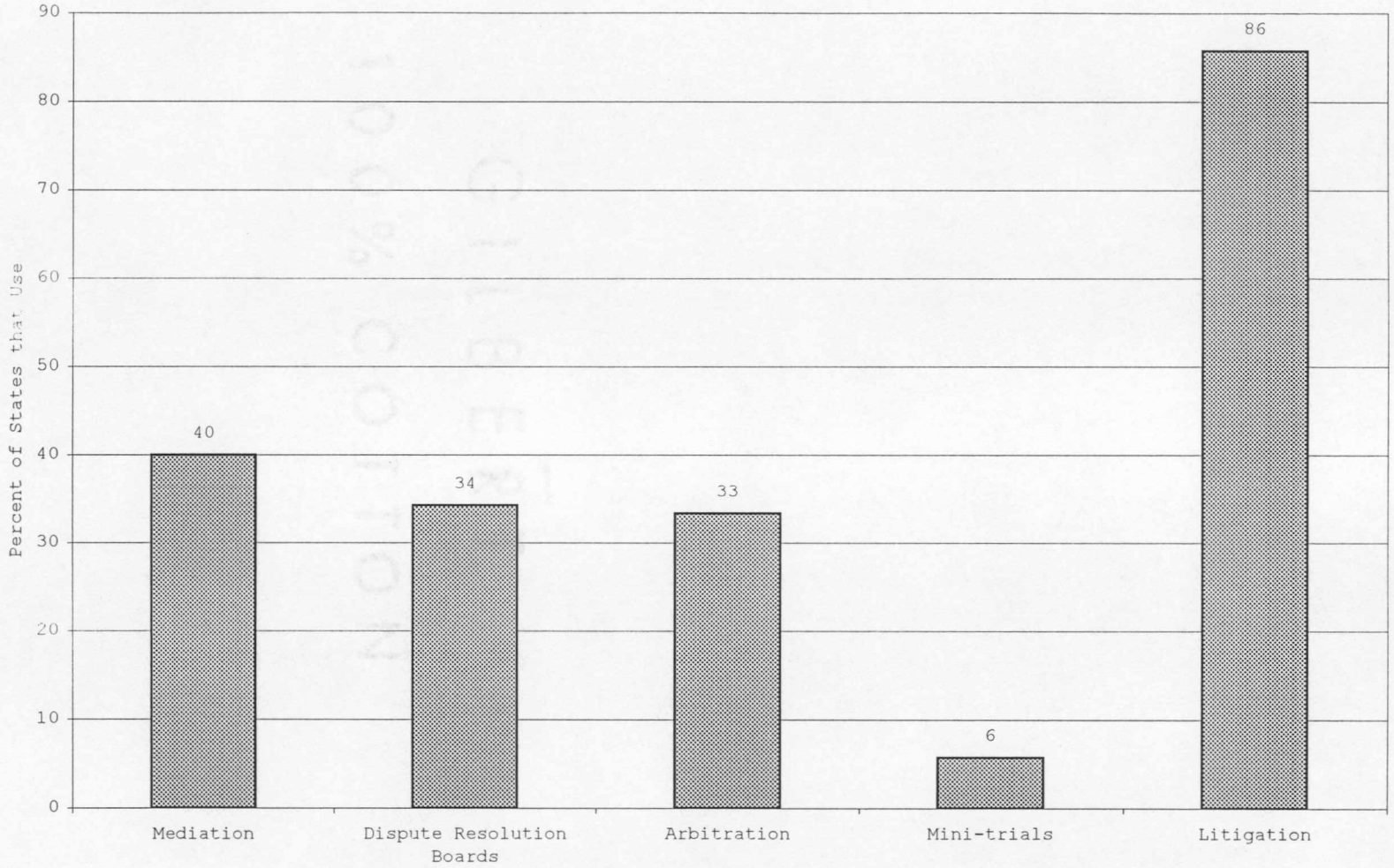

Figure 5. Methods Used in Settling Claims

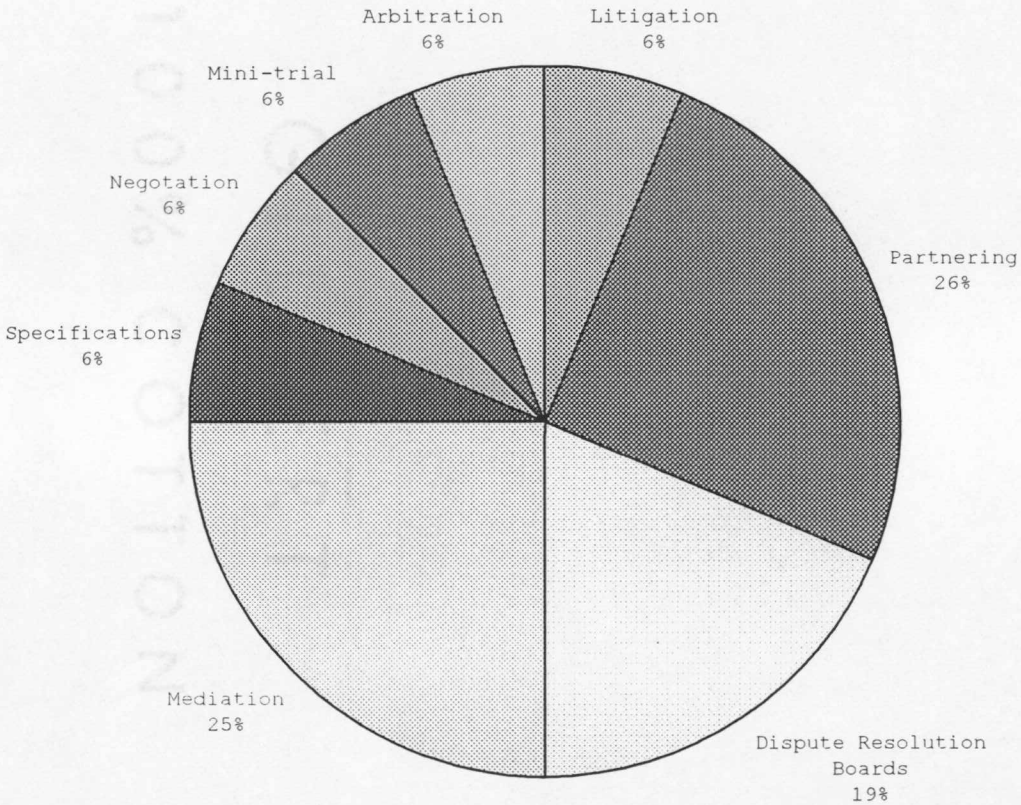

Figure 6. Resolution Preferences

in the pie chart, include communication and settling claims at the lowest possible level.

3.9 Tennessee Department of Transportation Comparison

This section is a comparison between the Tennessee Department of Transportation and the overall procedures being used by the states that replied to the questionnaire. Tennessee had 0.51% claims based on the number of contracts, which was well below the questionnaire average of 6.71%. On the other hand, Tennessee does not outline a claims resolution process in their state specifications. 81% of the respondents do outline a claims resolution process in their state specifications. 94% of the states, including Tennessee, reported utility relocation as a problem. Tennessee requires schedules to be updated upon request, where 42% of the states require monthly updates. Change of Scope was ranked as the most common type of claim in Tennessee. The most common type of claim reported by the states were delay claims, which Tennessee ranked third. A contractor is required to notify the Tennessee Department of Transportation of a potential claim before proceeding with the work. This is consistent with 91% of the states that have the same policy Litigation was the only

reported method, as well as the preferred method, of claims resolution for the Tennessee Department of Transportation.

3.10 Summary

Results presented in this chapter summarize the questionnaire responses. Comparisons were made between the state Departments of Transportation with the data reported. A comparison was also made between the Tennessee Department of Transportation and other states. Permitting, scheduling, and types of claims were evaluated. Additionally, daily documentation and increased documentation with a potential claim was summarized. The claims process for the states were assessed and the most common types of claims resolution were found.

CHAPTER FOUR

CONCLUSIONS

This chapter contains a summary of the questionnaire data and conclusions of the research. The prevention of claims and claims procedures are evaluated for the state Departments of Transportation by using the results reported in Chapter 3.

4.1 General Summary of Results

On average, 6.71% of state Departments of Transportation contracts result in claims. The most common type of claims reported were delay claims. One reason for delay claims being the most common could be the result of utility relocation problems that 94% of the states reported as being a problem. Delay claims are time-related, therefore making the schedule important in evaluating the claim. The results indicated that most of the states utilize scheduling as one of the means for keeping projects on time. The results also indicated that the states found daily documentation to be important and kept good records.

4.2 Prevention of Claims

One important part of the claims process is the prevention of claims altogether The questionnaire results indicated that the state Departments of Transportation have good methods of prevention. 81% of the state Departments of Transportation outline their claims procedures in their state specifications. 91% also require that the contractor notify the state of a potential claim before proceeding with the work. Additionally, the data showed that the state Departments of Transportation kept good daily records. In addition to good daily documentation, the states also indicated that schedules were used to keep projects on schedule. 100% of the states monitor job schedules or work completed. Most of the states calculate behind schedule projects using the schedule or a combination of work complete versus time. Good documentation, tracking project schedules, and having a clear claims procedure outlined in the specifications indicate that most states are using preventative measures to avoid claims.

4.3 Claims Procedures

Not all claims can be avoided, so it is important that the states have good procedures if a claim does occur. The questionnaire results showed that the states increase the following documentation when there is a potential claim:

- 34% monitor payroll
- 66% monitor productivity
- 74% take photographs/videos
- 71% write daily reports

Increased documentation can be important in evaluating a claim that has occurred. Additionally, the questionnaire determined the importance of daily documentation in claims processing The results showed that the construction schedule, daily field reports, firsthand witnesses, correspondence, detailed job costs, and forced account costs were very important. Video/photographs, expert testimony, home office overhead costs, indirect job costs, and productivity calculations were all found to be somewhat important. This indicated that the states valued daily documentation for evaluating claims.

The most commonly used method for resolving claims was reported to be litigation, with 86% of the states involved in litigation at some point. Mediation, arbitration, and

dispute resolution boards were also used by a smaller percentage of states, but still seemed to be common resolution methods. When asked which methods were preferred, most of the states preferred either partnering or mediation.

4.4 Conclusions

Overall, the state Departments of Transportation that replied to this questionnaire are doing an adequate job at preventing and processing claims. Good documentation and scheduling are emphasized in the questionnaire results. The data show that the states realize the importance of claims prevention and quick resolution when a claim does occur. Many of the states reported that that solving problems at the lowest possible level was important. Communication was also reported by many states as a key factor in solving problems. The average claims occurrence of 6.71%, based on number of contracts, does not appear to be extremely high. This indicates that many of the problems are probably being solved at the field level before escalating to a formal claim.

REFERENCES

REFERENCES

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APPENDIX A

Appendix A. Construction Claims Questionnaire

This survey is part of a research project funded by the Tennessee Department of Transportation.

Part I - General information

1. Name

2. State

3. Job Title

4. Phone Number ( ) -

Part II - General Claims Information

1. What was last year's highway construction budget for your state?

2. What was the total number of highway construction contracts awarded (last year)?

3. What is your state's average number of claims annually?

4. What percentage of claims filed are settled by some form of dispute resolution?

5. Is a claims resolution process outlined in your general specifications?

○ Yes ○ No

6. Can your state be sued?

○ Yes ○ No

7. Is utility relocation a potential problem for claims in your state?

○ Yes ○ No

Part III - Permits

1. What permits are the contractor responsible for obtaining?

2. What permits are the state responsible for obtaining?

Part IV - Scheduling

1. Do contractors submit a schedule at the beginning of the project?

○ Yes ○ No ○ Sometimes

2. Are schedules updated throughout the project?

○ Yes ○ No If Yes, then how often?

3. Does the DOT monitor job schedules or work completed?

○ Yes ○ No If yes, then how do you monitor the work?

4. What, if any, is the policy on projects which are behind schedule?

5. If behind schedule projects are monitored, how is the % behind calculated? (CPM, etc.)

6. Are contract times based on:

○ Calendar days

○ Working days

○ Both methods are used

7. If both methods in question 6 are used, which do you prefer?

Part V - Types of Claims

1. Rank the following types of claims the dept. handles from 1 - 5 (1 being most common, 5 being least common)

☐ Substantial Change in Scope of Work

☐ Acts of God (i.e. natural disasters, change of conditions)

☐ Delays

☐ Acceleration

☐ Defective Plans & Specifications

Part VI - Documentation

1. Which of the following information do state inspectors keep in daily records? (check all that apply)

☐ Weather conditions

☐ Number of workers

☐ Equipment on jobsite

☐ Unusual conditions

☐ Productivity

☐ Other

2. To whom are field records distributed?

3. After receiving "notice" of a possible dispute, do you increase documentation with any of the following? (Check all that apply)

☐ Monitor payroll

☐ Monitor productivity

☐ Take photographs and/or videos

☐ Keep daily reports

☐ Other, please specify

Part VII - Handling of Claim

How important are the following in processing a claim?

1. Construction Schedule Very important

2 Video / Photographs Very important

3. Daily field reports Very important

4. Firsthand witness Very important

5. Expert testimony [Very important]

6. Correspondence [Very important]

7. Detailed job costs [Very important]

8. Forced account costs [Very important]

9. Home office overhead costs [Very important]

10. Indirect job costs [Very important]

11. Productivity calculations [Very important]

Part VIII - Claims Process

1. Is the contractor required to notify the state of a potential claim before proceeding with the work?

○ Yes ○ No

2. How is a claim initially filed?

3. Who decides whether there is a valid claim? (job title)

4. If the claim is valid, is it settled at that level?

○ Yes ○ No

5. If the claim is denied, what is the next step?

6. If there is a dispute between the state and the

contractor, how is the claim handled?

7. Does your state use any of the following methods of settling claims?

Mediation

○ Yes ○ No If yes, under what circumstances?

Dispute resolution boards

○ Yes ○ No If yes, under what circumstances?

Arbitration

○ Yes ○ No If yes, under what circumstances?

Mini-trials

○ Yes ○ No If yes, under what circumstances?

Litigation

○ Yes ○ No If yes, under what circumstances?

8. What method do you feel is the most effective in resolving a claim?

Please review your answers and hit the submit button. Thank you.

Submit

APPENDIX B

APPENDIX B. HTML for Questionnaire

```
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<head>
<meta http-equiv="Content-Language" content="en-us">
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content="text/html, charset=iso-8859-1">
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<meta name="GENERATOR" content="Microsoft FrontPage Express
2.0">
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</head>

<body>

<p align="center"><font color="#FF6600"
size="5"><b><u>Construction
Claims Questionnaire</u></b></font></p>

<p align="center"><font size="3">This survey is part of a
research project funded by the Tennessee Dept. of
Transportation.</font></p>

<form
action="http://web.utk.edu/cgi-
bin/cgiwrap/jduncan3/survey.pl"
method="POST">
    <p align="left"><font size="4"><b>Part I - General
    information</b></font></p>
    <p align="left">1. Name <input type="text" size="26"
    name="Name"></p>
    <p align="left">2. State <select name="State" size="1">
        <option>Alabama</option>
        <option>Alaska</option>
        <option>Arizona</option>
        <option>Arkansas</option>
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        <option>Idaho</option>
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        <option>Utah</option>
        <option>Vermont</option>
        <option>Virginia</option>
        <option>Washington</option>
        <option>West Virginia</option>
        <option>Wisconsin</option>
        <option>Wyoming</option>
        <option>Other</option>
    </select></p>
    <p align="left">3. Job Title <input type="text"
size="24"
    name="Job"></p>
    <p align="left">4. Phone Number (<input type="text"
size="3"
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    name="areacode">)<input type="text" size="3"
name="phone">-<input
    type="text" size="4" name="number"></p>
    <p align="left"><font size="4"><b>Part II - General
Claims
    Information</b></font></p>
    <p align="left">1.  What was last year's highway
    construction budget for your state?  <input
    type="text" size="18" name="FHWA"></p>
    <p align="left">2.  What was the total number of
highway
    construction contracts awarded (last year)? 
<input
    type="text" size="10" name="nocontracts"></p>
    <p align="left">3. What is your state's average number
of
    claims annually? <input type="text" size="9"
name="claims"></p>
    <p align="left">4.  What percentage of claims
filed are
    settled by some form of dispute resolution? <input
    type="text" size="7" name="dispute"></p>
    <p align="left">5   Is a claims resolution process
    outlined in your general specifications?</p>
    <p align="left"><input type="radio" name="process"
    value="Yes25">Yes   <input type="radio"
    name="process" value="no25">No</p>
    <p align="left">6   Can your state be sued?</p>
    <p align="left"><input type="radio" name="sued"
value="yes26">Yes   
    <input type="radio" name="sued" value="no26">No</p>
    <p align="left">7   Is utility relocation a
potential
    problem for claims in your state?</p>
    <p align="left"><input type="radio" name="utility"
    value="Yes27">Yes   , <input type="radio"
    name="utility" value="no27">No</p>
    <p align="left"><font size="4"><b>Part III -
Permits</b></font></p>
    <p align="left">1.  What permits are the
contractor
    responsible for obtaining?</p>
    <p align="left"><textarea name="contrpermits" rows="2"
    cols="51"></textarea></p>
    <p align="left">2.  What permits are the state
    responsible for obtaining?</p>
```

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    <p align="left"><textarea name="statepermits" rows="2"
    cols="47"></textarea></p>
    <p align="left"><font size="4"><b>Part IV -
Scheduling</b></font></p>
    <p align="left">1. Do contractors submit a schedule at
the
    beginning of the project?</p>
    <p align="left"><input type="radio" name="submit"
    value="yes41">Yes  <input type="radio"
name="submit"
    value="no41">No <input type="radio" name="submit"
    value="sometimes">Sometimes</p>
    <p align="left">2. Are schedules updated throughout the
    project?</p>
    <p align="left"><input type="radio" name="updated"
    value="yes42">Yes  <input type="radio"
name="updated"
    value="no42">No    If Yes, then how
often? <input
    type="text" size="18" name="schedupdate"></p>
    <p align="left">3. Does the DOT monitor job schedules
or work
    completed?</p>
    <p align="left"><input type="radio" name="track"
    value="yes43">Yes  <input type="radio"
name="track"
    value="no43">No    If yes, then how do
you
    monitor the work?<input type="text" size="22"
name="monitor"></p>
    <p align="left">4. What, if any, is the policy on
projects
    which are behind schedule?</p>
    <p align="left"><textarea name="policy" rows="3"
cols="50"></textarea></p>
    <p align="left">5. If behind schedule projects are
monitored,
    how is the % behind calculated? (CPM, etc.)</p>
    <p align="left"><textarea name="behindcalc" rows="3"
    cols="59"></textarea></p>
    <p align="left">6.  Are contract times based
on:</p>
    <p align="left"><input type="radio" name="times"
    value="calendar">Calendar days</p>
    <p align="left"><input type="radio" name="times"
    value="working">Working days</p>
```

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    <p align="left"><input type="radio" name="times"
value="both">Both
    methods are used</p>
    <p align="left">7.  If both methods in question 6
are
    used, which do you prefer?    <input
    type="text" size="19" name="prefer"></p>
    <p align="left"><font size="4"><b>Part V - Types of
Claims</b></font></p>
    <p align="left">1. Rank the following types of claims
the
    dept. handles from 1 - 5 (1 being most common, 5 being
least
    common)</p>
    <p align="left"><input type="text" size="1"
name="cardinal">Substantial
    Change in Scope of Work</p>
    <p align="left"><input type="text" size="1"
name="acts">Acts
    of God (i.e. natural disasters, change of
conditions)</p>
    <p align="left"><input type="text" size="1"
name="delays">Delays</p>
    <p align="left"><input type="text" size="1"
name="accel">Acceleration</p>
    <p align="left"><input type="text" size="1"
name="defective">Defective
    Plans &amp; Specifications</p>
    <p align="left"><font size="4"><b>Part VI -
Documentation</b></font></p>
    <p align="left">1. Which of the following information
do
    state inspectors keep in daily records? (check all that
apply)</p>
    <p align="left"><input type="checkbox" name="weather"
    value="weather">Weather conditions</p>
    <p align="left"><input type="checkbox" name="workers"
    value="workers">Number of workers</p>
    <p align="left"><input type="checkbox" name="equip"
    value="equip">Equipment on jobsite</p>
    <p align="left"><input type="checkbox"
name="conditions"
    value="conditions">Unusual conditions</p>
    <p align="left"><input type="checkbox"
name="productivity"
    value="productivity">Productivity</p>
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    <p align="left"><input type="checkbox" name="other"
    value="other">Other <input type="text" size="20"
    name="docother"></p>
    <p align="left">2.  To whom are field records
    distributed?</p>
    <p align="left"><textarea name="records" rows="2"
cols="42"></textarea></p>
    <p align="left">3. After receiving &quot;notice&quot;
of a
    possible dispute, do you increase documentation with
any of
    the following? (Check all that apply)</p>
    <p align="left"><input type="checkbox" name="payroll"
    value="payroll">Monitor payroll</p>
    <p align="left"><input type="checkbox"
name="monitorprod"
    value="monitorprod">Monitor productivity</p>
    <p align="left"><input type="checkbox" name="photos"
    value="photos">Take photographs and/or videos</p>
    <p align="left"><input type="checkbox" name="reports"
    value="reports">Keep daily reports</p>
    <p align="left"><input type="checkbox"
name="othermethod"
    value="othermethod">Other, please
specify    <input
    type="text" size="25" name="otherrecord"></p>
    <p align="left"><font size="4"><b>Part VII - Handling
of
    Claim</b></font></p>
    <p align="left">How important are the following in
processing
    a claim?</p>
    <p align="left">1  Construction Schedule <select
name="Sched"
    size="1">
        <option>Very important</option>
        <option>Somewhat important</option>
        <option>Not important</option>
    </select></p>
    <p align="left">2  Video / Photographs <select
name="Video"
    size="1">
        <option>Very important</option>
        <option>Somewhat important</option>
        <option>Not important</option>
    </select></p>
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    <p align="left">3. Daily field reports <select
    name="Dailyreport" size="1">
        <option>Very important</option>
        <option>Somewhat important</option>
        <option>Not important</option>
    </select></p>
    <p align="left">4. Firsthand witness <select
name="witness"
    size="1">
        <option>Very important</option>
        <option>Somewhat important</option>
        <option>Not important</option>
    </select></p>
    <p align="left">5. Expert testimony <select
name="expert"
    size="1">
        <option>Very important</option>
        <option>Somewhat important</option>
        <option>Not important</option>
    </select></p>
    <p align="left">6. Correspondence <select
name="corresp"
    size="1">
        <option>Very important</option>
        <option>Somewhat important</option>
        <option>Not important</option>
    </select></p>
    <p align="left">7.  Detailed job costs 
<select
    name="jobcosts" size="1">
        <option>Very important</option>
        <option>Somewhat important</option>
        <option>Not important</option>
    </select></p>
    <p align="left">8   Forced account costs 
<select
    name="forcedacct" size="1">
        <option>Very important</option>
        <option>Somewhat important</option>
        <option>Not important</option>
    </select></p>
    <p align="left">9.  Home office overhead
costs  <select
    name="overhead" size="1">
        <option>Very important</option>
        <option>Somewhat important</option>
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        <option>Not important</option>
    </select></p>
    <p align="left">10.  Indirect job costs 
<select
    name="indirect" size="1">
        <option>Very important</option>
        <option>Somewhat important</option>
        <option>Not important</option>
    </select></p>
    <p align="left">11.  Productivity
calculations  <select
    name="productcalcs" size="1">
        <option>Very important</option>
        <option>Somewhat important</option>
        <option>Not important</option>
    </select></p>
    <p align="left"><font size="4"><b>Part VIII - Claims
Process</b></font></p>
    <p align="left">1. Is the contractor required to notify
the
    state of a potential claim before proceeding with the
work?</p>
    <p align="left"><input type="radio" name="notify"
    value="yes81">Yes  <input type="radio"
name="notify"
    value="no81">No</p>
    <p align="left">2  How is a claim initially filed?</p>
    <p align="left"><textarea name="intiallyfiled" rows="3"
    cols="39"></textarea></p>
    <p align="left">3. Who decides whether there is a valid
claim?
    (job title) <input type="text" size="27"
name="claimsperson"></p>
    <p align="left">4. If the claim is valid, is it settled
at
    that level?</p>
    <p align="left"><input type="radio" name="valid"
    value="yes84">Yes  <input type="radio"
name="valid"
    value="no84">No</p>
    <p align="left">5  If the claim is denied, what is the
next
    step?</p>
    <p align="left"><textarea name="deniedstep" rows="3"
    cols="40"></textarea></p>
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    <p align="left">6  If there is a dispute between the
state
    and the contractor, how is the claim handled?</p>
    <p align="left"><textarea name="disputehandled"
rows="4"
    cols="54"></textarea></p>
    <p align="left">7. Does your state use any of the
following
    methods of settling claims?</p>
    <p align="left">Meditation</p>
    <p align="left"><input type="radio" name="med"
value="yes871">Yes 
    <input type="radio" name="med"
value="no871">No   
    If yes, under what circumstances? <input type="text"
    size="39" name="Mediation"></p>
    <p align="left">Dispute resolution boards</p>
    <p align="left"><input type="radio" name="disp"
    value="yes872">Yes  <input type="radio"
name="disp"
    value="no872">No    If yes, under what
    circumstances? <input type="text" size="39"
name="Drb"></p>
    <p align="left">Arbitration</p>
    <p align="left"><input type="radio" name="arb"
value="yes873">Yes 
    <input type="radio" name="arb"
value="no873">No   
    If yes, under what circumstances? <input type="text"
    size="39" name="arbitr"></p>
    <p align="left">Mini trials</p>
    <p align="left"><input type="radio" name="mini"
    value="yes874">Yes  <input type="radio"
name="mini"
    value="no874">No    If yes, under what
    circumstances? <input type="text" size="39"
name="minitr"></p>
    <p align="left">Litigation</p>
    <p align="left"><input type="radio" name="lit"
value="yes875">Yes 
    <input type="radio" name="lit"
value="no875">No   
    If yes, under what circumstances? <input type="text"
    size="39" name="litig"></p>
    <p align="left">8. What method do you feel is the most
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    effective in resolving a claim? <input type="text"
size="24"
    name="effective"></p>
    <p align="left"><font size="3">Please review your
answers and
    hit the submit button.  Thank you.</font></p>
    <p align="left"><input type="submit"
value="Submit"></p>
</form>

<p align="left"> </p>
</body>
</html>
```

VITA

Jennifer Duncan was born in Huntington, West Virginia on August 20, 1976. She attended public school in Cabell County, West Virginia, and graduated from Barboursville High School in 1994. After graduation, she attended Marshall University in Huntington, West Virginia from August 1994 until May 1997 as a pre-engineering major. In the fall of 1997, Jennifer transferred to The University of Tennessee, Knoxville to finish a Bachelors of Science in Civil Engineering. This degree was completed in May 1999. She continued her education at the University of Tennessee, Knoxville in the summer of 1999. The Masters of Science in Civil Engineering was received in August 2000. She is currently seeking a job in Civil Engineering.